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REPORTS

OF THE

DEPARTMENT OF COMMERCE AND LABOR

1909

REPORT OF THE SECRETARY OF COMMERCE AND LABOR

AND

REPORTS OF BUREAUS

WASHINGTON
GOVERNMENT PRINTING OFFICE
1910

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REPORT

OF THE

SECRETARY OF COMMERCE AND LABOR

SEVENTH ANNUAL REPORT

OF THE

SECRETARY OF COMMERCE AND LABOR.

DEPARTMENT OF COMMERCE AND LABOR,
OFFICE OF THE SECRETARY,
Washington, December 1, 1909.

To the PRESIDENT:

I have the honor to submit my first annual report. This report of course covers a portion of the administration of my predecessor, Mr. Straus, to whose preparatory work I am in large measure indebted for some of the recommendations which are herein contained.

This Department embraces bureaus of such varied interests that it is altogether impossible to consider the work of the Department without giving a detailed account of the activities of each branch. Perhaps the one comment of general interest which may be made with entire justice to all is that during the last four years the appropriations for the entire Department have been increased only 3.2 per cent. It may be assumed that the activities of none of the older bureaus can be reduced, with proper regard to the needs to be served, and that some of the more modern bureaus, whose activities have been more or less experimental, must necessarily be extended. If the appropriations are to be held at the present figures, it will therefore become necessary to make a dollar go farther than it has. This may, in my opinion, be accomplished in some measure; not so much by exacting more work of the employees as by a reorganization of the work itself. How much it may be possible to accomplish by this means, I am not now able to say; but that much may be done I hope to demonstrate by a few recommendations which I am now prepared to make, and which are referred to under the heads of the Light-House Board, the Bureau of Statistics, and the Bureau of Manufactures.

BUREAU OF CORPORATIONS.

PUBLICATION OF REPORTS.

During the past fiscal year the Bureau of Corporations carried on its work of investigating corporate affairs along the lines followed since its creation.

In February the Bureau published Part I of its Report on the Tobacco Industry. This part dealt with the position of the "Tobacco Combination" in the industry. It gave the result of a long and careful examination of the history, organization, and general development of the American Tobacco Company and its subsidiary concerns, including also certain independent tobacco companies. The American Tobacco Company afforded the Bureau practically complete access to all its records, which were very extensive and voluminous, and the results, when digested into logical shape, presented an unusually complete and reliable view of the history and organization of one of the great interstate-commerce industries of the country. Further parts of this report are now in preparation.

In June the Bureau prepared for the President a report on "Prices of Tobacco, and the Operations of Corporations and Others Dealing Therein," in response to a resolution of the Senate adopted May 14, 1909, and the President transmitted the same to the Senate, where it was consulted in connection with proposed changes in the internal-revenue tax on tobacco products.

During May the Bureau published Part I of its Report on Taxation of Corporations, which dealt with the systems of taxing manufacturing, mercantile, transportation, and transmission corporations in the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. It set forth these systems in a uniform shape. It gave for each of these States the financial results of the system of taxation for the latest fiscal year. A large part of its value was due to the fact that in each case the proper state officials were consulted, as a result of which an understanding of the practical enforcement of the laws was secured from the best possible sources. No taxation system as it appears on the statute books can be properly understood without a knowledge of the spirit, manner, and practical results of its enforcement. Similar reports on other sections of the country are in preparation. The subject is of such current importance, and reveals such remarkable differences and inconsistencies in theory and practice, that a comparative statement of the important state systems of corporate taxation should be of considerable and immediate value.

PENDING INVESTIGATIONS.

At the end of the fiscal year the Bureau had on hand as current work investigations also of the lumber and steel industries, the International Harvester Company, concentration of water-power ownership, and transportation by water in the United States, and was continuing its investigations of the tobacco industry, the operation of cotton exchanges, and state systems of corporate taxation.

GOVERNMENT SUPERVISION OVER CORPORATIONS.

The problem of the proper control of our enormous commercial and financial forces is admitted to be one of the great questions before the country.

For this great problem there is imperative need of two things—first, reliable information upon which the Government may take proper legislative and administrative action; second, reliable information in concise and available form to serve as a basis for public opinion. The first step to be taken is an advance toward a complete system for obtaining and making public this necessary information. The Bureau of Corporations, through its investigatory power, has been obtaining this information in those specific instances and industries which, with the force and money available, it has been able to cover. The value of this work has been demonstrated beyond dispute.

It is clear, however, that the time has come for a far wider and more complete application of those principles. This can be accomplished only by the establishment of a definite federal system of statutory publicity by which all important corporations engaged in interstate commerce shall be required to report at stated intervals to a federal agency such as the Bureau of Corporations the essential facts in regard to their organization, management, and condition. This will accomplish for the entire business machinery of the country, in so far as it is in the hands of corporations, what the Bureau has been doing in specific cases. It must be carried on by the Federal Government, because that agency is the only one whose jurisdiction is commensurate with the subject-matter and which can prescribe uniform conditions for the entire country. Any attempt to solve the problem through state action has been and necessarily will be futile. No considerable number of States can ever agree in establishing or maintaining any one system. No State alone can make its own system effective. In financial and commercial conditions, the business of the country has become nationalized. Its legal regulation also must be national.

Brief outlines of such a system as pointed out in previous reports of the Secretary are substantially as follows:

The system should be carried on by the Federal Government.

It should require regular reports from all large corporations engaged in interstate commerce to a federal administrative office, supplemented by the power on the part of that office to verify and enlarge by further investigation these reports and the facts connected therewith.

It should provide for the publication in concise and intelligible form of all the important facts of corporate operations which are of public interest, but should at the same time safeguard from unnecessary publication all proper business secrets.

It should recognize the fact that if the Government regulates corporate business it should also extend to it, as far as possible, that proper protection which is the necessary corollary of such regulation. If the Government undertakes to regulate corporate combination, it is also obvious that such combination must be recognized within its proper limits. It is useless to ignore the plain fact that business centralization has been largely accomplished already and that this centralization has been forced by imperative economic law. The problem before the Government in this connection is, therefore, not that of the existence of combination, but that of the misuse of the vast commercial powers acquired thereby.

To prove the power of publicity, there has been cited already in the reports of the Commissioner of Corporations the remarkable example of the abolition in 1906 of a great system of railway discriminations through the simple publication of the facts relating thereto. This abolition was voluntarily effected by the railroads concerned. Another example equally significant occurred during the last fiscal year. In May, 1908, the Commissioner of Corporations published three reports in which certain operations of the important cotton exchanges of New York and New Orleans were criticised. In July of that year each of these exchanges appointed a special committee to consider those reports and questions raised thereby, with express instructions to confer with the Commissioner of Corporations in such consideration. Conferences taking up thoroughly the questions involved were thus had between the exchanges and the Commissioner. As a result, in February of this year, after an extended conference at New Orleans, the cotton exchange of that city adopted by a practically unanimous vote all of the recommendations of the Commissioner for important reforms in its methods—reforms which will affect the interests of cotton producers, merchants, spinners, and consumers, and will tend, as is believed, to put this great central market in a position where it can far better perform the beneficial functions which the industry has a right to expect.

BUREAU OF LABOR.

INVESTIGATIONS DURING THE YEAR.

The principal work upon which the Bureau of Labor has been engaged during the year is the investigation authorized and directed by Congress relating to the condition of woman and child workers in the United States. The field work has been practically completed and the Bureau is now engaged upon the preparation of the report, which it is expected will be finished by the close of the calendar year. In this work extensive investigation has been made in four important industries employing large numbers of women and children, namely, cotton textiles, silk manufacturing, men's clothing, and glass making. Studies have also been made on a number of topics pertaining to the general subject.

During the year the twenty-second annual report of the Bureau, entitled "Labor Laws of the United States," was printed and quite generally distributed.

The report on workmen's insurance and benefit funds in the United States has been completed and will be published as the twenty-third annual report of the Bureau. This report is exhaustive as to the benefit funds of the national labor organizations, and is nearly exhaustive as to railroad benefit and pension funds. In addition, the report covers several hundred benefit funds maintained by industrial establishments, local labor organizations, and workingmen's societies.

During the year a report on workmen's insurance in foreign countries has been in course of preparation. It is expected that this report will be completed by the close of the calendar year, when it will be published as the twenty-fourth annual report of the Bureau.

By a Senate resolution the Secretary of Commerce and Labor was directed to make an investigation of the telegraph and telephone business in the United States, and part of this task was assigned to the Bureau of Labor. Data concerning both industries were obtained, and that portion relating to the telegraph industry has been compiled and published as a Senate document. As soon as the clerical force is available the telephone data will be compiled and published.

At the request of the Select Committee of the House of Representatives on Paper and Wood Pulp the Bureau made an investigation of the labor cost of production of paper and wood pulp in the United States, Canada, Sweden, and Norway, and the information gathered has been transmitted to the committee.

A brief preliminary study has been made of fatal industrial accidents, the chief points of such inquiry being the cause of such accidents and the compensation, if any, received by the families of the deceased. A comprehensive investigation of this subject is being planned by the Bureau.

Under the provisions of the Erdman Act the Commissioner of Labor and the chairman of the Interstate Commerce Commission have, upon request of contending parties, considered a number of disputes between interstate-commerce carriers and their employees.

BIMONTHLY BULLETINS.

In addition to the usual matter pertaining to labor laws and decisions of courts and digests of state and foreign labor reports, the bimonthly bulletins for the fiscal year, based on investigations of the Bureau, present articles and reports as follows:

Bulletin 77: Wages and Hours of Labor, 1890–1907, and Retail Prices of Food, 1890–1907.

Bulletin 78: Industrial Accidents, and Mexican Labor in the United States.

Bulletin 79: Mortality from Consumption in Dusty Trades, and Charity Relief and Wage-Earnings.

Bulletin 80: Women and Child Wage-Earners in Great Britain.

Bulletin 81: Wholesale Prices in the United States, 1890–1908.

Bulletin 82: Mortality from Consumption in Certain Occupations.

GOVERNMENT WORKINGMEN'S COMPENSATION ACT.

The Bureau of Labor is charged with the details of the administration of the act of Congress granting compensation for injuries to certain classes of artisans and laborers employed by the United States Government. This law went into effect August 1, 1908. During the eleven months ended June 30, 1909, claims to the number of 1,545 were made under this law, of which number 1,504 were acted upon and 41 were in the course of investigation or adjustment at the close of the year.

In order that full data may be available in regard to accidents to all classes of employees, should question arise in future as to the extension or modification of the principle of the act, regulations have been issued requiring a report to the Department of all injuries to government employees occurring in the course of their employment whenever such injuries disable them from work for a period of one day or longer. The total number of accidents reported under these regulations during the eleven months ended June 30, 1909, was 4,146. It is probable, however, that all cases have not been reported and that the total number of accidents in the civil service exceeds, to some extent at least, the number stated. It is believed that in a comparatively short time the statistics of such accidents will be of considerable general value aside from their bearing upon legislation to enlarge the scope of the law which Congress may consider. It is apparent that the law in its present form does not assure equality or proportion and that its provisions ought to be liberalized.

BUREAU OF IMMIGRATION AND NATURALIZATION.

It is of course unnecessary to comment upon the importance of the Immigration Service. We are interested in the character of the people who are admitted, and we are concerned that the treatment accorded to them, and also to those who may be rejected, shall be indicative of the spirit of our institutions. This involves, of course, the state of the law, the morale of the force to carry it out, and the condition of the stations at which immigrants are received.

It is believed that very satisfactory progress has been made in the equipment and management of the stations which have so far been provided, although it may be necessary to make provision for still more stations. At Ellis Island improvements of very great importance have been completed that afford fair facilities for the examination and the treatment of immigrants at that point. It is proper to add that the administration of the present commissioner has greatly promoted the equal enforcement of the law and the scrupulous protection of the immigrants while in his charge. At San Francisco it is hoped that the new station will be put in use not later than January, 1910, and that with this change all grounds for complaint at that point will be removed. It had been thought that the quantity of immigration at San Francisco did not justify the large station at Angel Island. But for many reasons the careful treatment of immigrants at that station is of such importance that it was regarded as controlling in the decision to make the change.

In Boston, Philadelphia, New Orleans, Galveston, and Charleston sites for stations have been selected, and the construction of the necessary buildings is waiting upon the perfection of titles or the compliance with certain conditions. In every instance it is my purpose to proceed with the utmost promptness, both because I regard the making of an appropriation as a substantial instruction to build, and because in the absence of regular stations the conditions under which immigrants are landed are usually intolerable.

While the Immigration Service is assuming very large proportions, and the expense is running into considerable figures, it is well to remember that the protection and fair treatment of human beings is one of its purposes, and that the head tax paid by the immigrants themselves still exceeds the cost of the entire Immigration and Naturalization Services.

In the administration of the laws relating to the above-mentioned subjects the Bureau of Immigration and Naturalization is organized under three heads: First, the Bureau proper, which is the headquarters of the Immigration Service, engaged in the enforcement of the general immigration law, the alien contract-labor law, and the various statutes regulating the admission of Chinese; second, the Division of Naturalization, established by the act of June 29, 1906, having control of questions affecting naturalization; and, third, the Division of Information, created under section 40 of the act of February 20, 1907, and charged with the duty of collecting and disseminating all available information as to physical resources, etc., of the different sections of the country with the purpose of aiding a beneficial distribution of landed immigrants. This report can not properly contain any extended discussion of these various important questions. The details thereof are succinctly and comprehensively set forth in the report of the Commissioner-General of Immigration. I therefore attempt no more than to direct attention to some of the more important facts with respect to each question, considering them under the several appropriate headings.

IMMIGRATION IN GENERAL.

It is possible to gain from the compilation of immigration statistics for the past fiscal year a comprehensive and approximately accurate idea of the net increase of population by immigration. Of the total of 944,235 aliens entering the country, 751,786 were of the immigrant class (i. e., had left a permanent residence outside the United States and were entering with the intent to reside permanently in this country), while 192,449 were of the nonimmigrant class (i. e., were either former residents of the United States returning after a temporary absence or were permanent residents of foreign countries entering for temporary purposes only). On the other hand, of the total of 400,392 departing, 225,802 were of the emigrant class (i. e., were leaving a permanent residence in the United States with the intent to reside permanently abroad), and 174,590 were of the nonemigrant class (i. e., were departing with the intent to remain abroad temporarily, or were returning to their native lands after a temporary stay in the United States). During the fiscal year 1908, aliens to the number of 924,695 (of whom 782,870 were immigrant and 141,825 nonimmigrant) entered the United States, while 714,828 aliens (395,073 emigrant and 319,755 nonemigrant) left the country. Therefore, while immigration for 1909 exceeded that for 1908 by 19,540 (31,084 less immigrant and 50,624 more nonimmigrant), the emigration for 1908 exceeded that for 1909 by 314,436 (169,271 more emigrant and 145,165 more nonemigrant), and there has been an actual increase in the alien population of the United States of 543,843. In 1908 the actual increase was 209,867; so that the increase for the past year exceeded that of the preceding year by 333,976. This growth is confined to the last half of the fiscal year, the first six months having shown even a less increase than the same months of 1908.

This would seem to indicate that the trend of immigration is upward, and that it is rapidly reassuming the large proportions from which there was a temporary departure in the fiscal year 1908 and the first half of the past year.

AGES, LITERACY, AND FINANCIAL CONDITION OF IMMIGRANTS.

Some striking facts are shown with regard to the 751,786 immigrant aliens who entered and the 225,802 emigrant aliens who departed. Of the former 624,876 were between the ages of 14 and 44, while 88,393 were under 14 and 38,517 were 45 or over, which figures relatively correspond with those for the preceding year. As to illiteracy 191,049 could neither read nor write and 2,431 could read but not write, these figures including no aliens under 14 years of age. Compared with the corresponding figures for 1908 this is an increase in illiterates from 26 per cent of the total to 29 per cent. In 1907 the ratio was 30 per cent, and in 1906, 28 per cent, on the basis of a very much larger immigration. Arriving aliens brought $17,331,828, an average of about $23.50 apiece. These figures, however, are not particularly valuable, as it is not certain that all money possessed was shown to inspection officers, nor is there any way to ascertain how much of that shown consisted of amounts sent abroad by relatives or friends of aliens located in this country, although a large proportion of it undoubtedly did so consist. With regard to the payment of passage, 523,718 claimed to have bought their own tickets, while 220,352 admitted assistance by relatives, and 7,716 by friends; so that, even on the basis of the aliens' statements, it appears that almost one-third of those admitted were assisted to reach this country.

AGES, PERIODS OF RESIDENCE, AND OCCUPATIONS OF DEPARTING ALIENS.

With respect to emigrant aliens it has been possible to keep a record of age and period of residence in the United States concerning 196,094 of the 225,802 departing, and to find that 9,804 were less than 14, 165,778 were from 14 to 44, and 20,512 were 45 years of age or over; 160,154 had resided in the United States less than 5 years, 26,967 from 5 to 10 years, 4,027 from 10 to 15 years, 2,666 from 15 to 20 years, and 2,280 over 20 years. As to occupations, it is interesting to note that 174,800 of the immigrant aliens entering and 118,936 of the emigrant aliens departing were common unskilled laborers, against 87,160 immigrant aliens entering and 21,919 emigrant aliens departing who were members of the skilled trades, which figures appear to substantiate the general impression that the so-called "bird-of-passage" element of our immigration is constituted largely of the unskilled.

SOURCES OF IMMIGRATION.

During the past, as in the several preceding years, a very large proportion of immigration has been from countries of southern and eastern Europe. Italy, Austria-Hungary, Greece, Turkey in Europe and the smaller principalities adjacent, and Russia have supplied about 67 per cent of the immigrants admitted. In 1908 these same countries furnished 64 per cent. It is impossible to say with any degree of confidence how far this change in the source of immigration has been caused by natural conditions and to what extent it may be stimulated by promoters or by the dissemination of exaggerated reports about opportunities for labor in this country.

REJECTIONS OF ARRIVING ALIENS.

There have been rejected at the United States ports during the past year 10,411 aliens, or about 1.09 per cent of the total number applying for admission. The following comparative statement relating to the period 1904 to 1909, inclusive, as to principal causes, moral, mental, and physical, for which aliens have been rejected, is taken from the report of the Commissioner-General:

Cause of rejection.	1904.	1905.	1906.	1907.	1908.	1909.
Idiots	16	38	92	29	20	18
Imbeciles	......	......	......	......	45	42
Feeble-minded persons	......	......	......	......	121	121
Insanity (including epileptics)	33	92	139	189	184	167
Likely to become a public charge, including paupers and beggars	4,798	7,898	7,069	6,866	3,741	4,458
Afflicted with contagious diseases	1,560	2,198	2,273	3,822	2,900	2,308
Afflicted with tuberculosis (contagious)	......	......	......	......	53	82
Criminals	35	39	205	341	136	273
Prostitutes and other immoral women	9	24	30	18	124	323
Procurers of prostitutes	3	4	2	1	43	181
Contract laborers	1,501	1,164	2,314	1,434	1,932	1,172

There has been a marked increase in the number rejected on moral grounds, namely, criminals, procurers, and prostitutes, due to the unremitting efforts to detect members of these especially undesirable classes and turn them back at the ports. The figures with regard to the other excluded classes require no special comment at this point.

ARRESTS AND DEPORTATIONS.

Closely related to the rejection of aliens is the matter of arresting and deporting those who enter the country unlawfully, or who, within three years after entry, become public charges. During the year 2,124 warrants of deportation were executed after granting hearings to the arrested aliens, compared with 2,069 executed during the previous year. This number is segregated into the following principal causes for deportation: Members of excluded classes at time of entry, 685; public charges from causes existing prior to entry, 990; became prostitutes after entry, 133; entered without inspection, 258. The addition of the number of any one of these classes arrested and deported to the number of the same class rejected at ports of entry will show the total number of such a class removed to country of origin during the year. These totals do not need to be discussed in detail, but it should be stated that during the year 5,266 aliens physically, mentally, or morally below the mark set by the law have been returned to the foreign ports of embarkation; and special note should be made of the fact that 69 "criminals," 261 immoral women, 30 procurers, and 1 anarchist have been arrested and deported, which, added to the number of these morally defective classes already mentioned, makes a total of 1,138 of these particularly undesirable aliens removed during the year to the countries whence they came, against a total of 392 for the preceding year. On this subject the following is quoted from the report of my predecessor for the fiscal year 1908, attention also being directed to a similar recommendation contained in the report of the Commissioner-General of Immigration for the past year:

> The law regarding these moral defects needs to be amended and strengthened in several important respects. In the first place, there is no occasion with regard to this class, as there is regarding the classes merely physically unsound, to fix a definite limit within which the Government can proceed for their deportation. It is obvious that such persons can not, merely by living here for a period of time, in any way correct their moral status at the time of entry, and the Government ought not to be restrained from removing from this country an anarchist, a criminal, or a moral degenerate merely because such person has been able to avoid detection for three years. As a further means of insuring the country against the introduction and residence here of members of the lawless or criminal class, section 20 of the immigration act should be so amended as to add to the deportable class of aliens therein described as persons who become "public charges from causes existing prior to landing," within three years after entry, aliens who, within such period, are convicted of or admit having committed a felony or other crime or misdemeanor involving moral turpitude, deportation to be effected at the expiration of such term of imprisonment as may be imposed.

WHITE-SLAVE TRAFFIC.

Especial efforts have been made by the Immigration Service to enforce the provisions of law which are partially related in purpose to those of the International White Slave Agreement. The result, in so far as the deportation of immoral women is concerned, is shown by the figures above given. A large number of prosecutions have been instituted by officers of the Department of Justice on information furnished by the immigrant inspectors engaged upon this branch of the work. To the extent that such prosecutions have covered

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Procurers of prostitutes	3	4	2	1	43	181
Contract laborers	1,501	1,164	2,314	1,434	1,932	1,172

There has been a marked increase in the number rejected on moral grounds, namely, criminals, procurers, and prostitutes, due to the unremitting efforts to detect members of these especially undesirable classes and turn them back at the ports. The figures with regard to the other excluded classes require no special comment at this point.

ARRESTS AND DEPORTATIONS.

Closely related to the rejection of aliens is the matter of arresting and deporting those who enter the country unlawfully, or who, within three years after entry, become public charges. During the year 2,124 warrants of deportation were executed after granting hearings to the arrested aliens, compared with 2,069 executed during the previous year. This number is segregated into the following principal causes for deportation: Members of excluded classes at time of entry, 685; public charges from causes existing prior to entry, 990; became prostitutes after entry, 133; entered without inspection, 258. The addition of the number of any one of these classes arrested and deported to the number of the same class rejected at ports of entry will show the total number of such a class removed to country of origin during the year. These totals do not need to be discussed in detail, but it should be stated that during the year 5,266 aliens physically, mentally, or morally below the mark set by the law have been returned to the foreign ports of embarkation; and special note should be made of the fact that 69 "criminals," 261 immoral women, 30 procurers, and 1 anarchist have been arrested and deported, which, added to the number of these morally defective classes already mentioned, makes a total of 1,138 of these particularly undesirable aliens removed during the year to the countries whence they came, against a total of 392 for the preceding year. On this subject the following is quoted from the report of my predecessor for the fiscal year 1908, attention also being directed to a similar recommendation contained in the report of the Commissioner-General of Immigration for the past year:

> The law regarding these moral defects needs to be amended and strengthened in several important respects. In the first place, there is no occasion with regard to this class, as there is regarding the classes merely physically unsound, to fix a definite limit within which the Government can proceed for their deportation. It is obvious that such persons can not, merely by living here for a period of time, in any way correct their moral status at the time of entry, and the Government ought not to be restrained from removing from this country an anarchist, a criminal, or a moral degenerate merely because such person has been able to avoid detection for three years. As a further means of insuring the country against the introduction and residence here of members of the lawless or criminal class, section 20 of the immigration act should be so amended as to add to the deportable class of aliens therein described as persons who become "public charges from causes existing prior to landing," within three years after entry, aliens who, within such period, are convicted of or admit having committed a felony or other crime or misdemeanor involving moral turpitude, deportation to be effected at the expiration of such term of imprisonment as may be imposed.

WHITE-SLAVE TRAFFIC.

Especial efforts have been made by the Immigration Service to enforce the provisions of law which are partially related in purpose to those of the International White Slave Agreement. The result, in so far as the deportation of immoral women is concerned, is shown by the figures above given. A large number of prosecutions have been instituted by officers of the Department of Justice on information furnished by the immigrant inspectors engaged upon this branch of the work. To the extent that such prosecutions have covered the importation of immoral women considerable success has been attained. The decision of the Supreme Court in the Keller case to the effect that the keeping, maintaining, and controlling of alien prostitutes in houses of ill fame is a matter which must, under the Constitution, be supervised, if at all, by the various States has of course embarrassed the efforts of federal authorities in this direction. It is much easier to prove charges of the latter character than that any particular person has been engaged in importing alien immoral women. The investigations which have been conducted in connection with this work have shown that trafficking in immoral women is an established and extensive business, and is by no means confined to trading in women who have been imported, but includes alien women who have entered the country in a regular way, and American women, as well. The federal officers, however, are powerless under existing law to deal with more than a very small factor of this proposition, and if the evil is to be eradicated the States and municipalities must be brought to realize its gravity and to take proper steps for its control. The law now prohibits the bringing of women into this country for immoral purposes. It is recommended that the law be so amended as to prohibit as well the bringing of women for such purposes from one State into another State, and that a sum of at least $50,000 be appropriated to enable the Department to enforce all federal laws against this traffic. At present there is no appropriation to cover this work, and what has been accomplished has been merely incidental to the general control exercised over immigration.

JAPANESE AND KOREAN LABORERS.

The Japanese and Korean laborers first became a separate class of excludable persons in March, 1907, when the President issued a proclamation putting into operation the proviso of section 1 of the act of February 20, 1907, dealing with that subject. For some time after that date the exclusion of such laborers apparently was not accomplished, but as the plan was developed and a thorough understanding secured with Japan with regard to the issuance of passports to subjects of that country of the laboring class proceeding to the United States it became quite evident that an efficient system for the control of the subject was perfected. This result is extremely gratifying, especially as the statistics for the past fiscal year show that with the lapse of time the system has improved and that it now works with a degree of success which has surpassed all expectations. During the year 2,644 Japanese applied for admission to continental United States, 2,432 of whom were admitted and 212 debarred. Of the number applying 2,407 were, and 237 were not, in possession of proper passports. Of those holding such passports 2,203 were found on examination to belong to classes entitled under the proclamation and understanding with Japan to receive such credentials, and only 204 were found not to be entitled thereto. The said 2,203 entitled to passports consisted of 768 former residents, 942 parents, wives, or children of residents, and 493 new arrivals who were nonlaborers. The 204 not entitled to passports were found to be laborers who were not former residents or the parents, wives, or children of such residents. During the same period 1,539 Japanese applied for admission to Hawaii, 1,493 of whom were admitted and 46 debarred. All but 11 of these applicants were in possession of passports, and 1,375 were found on examination to be entitled to the same and 153 not so entitled. Of the 1,375 entitled to passports 266 were former residents and 1,109 were parents, wives, or children of residents.

ALIEN CONTRACT LABORERS.

The provisions of the immigration law which relate to the subject of alien contract laborers were among the first to be enacted, and there has been a constant tendency on the part of the legislative branch to make such laws more restrictive and thereby afford a greater degree of protection to American labor. The act of 1907 has cured some of the most important defects in previous statutes and has made possible an improved enforcement. The Attorney-General rendered an opinion on a case referred to him from this Department that the alien contract labor provisions relate only to manual laborers, skilled and unskilled. This resulted in a reversal of the Department's practice in that regard, but as a practical matter has not so far led to the admission of more than a negligible number of aliens who would not otherwise have been admitted.

It is often difficult in specific cases in which only one or two aliens are seeking admission to determine whether the claim that employment has been prearranged for them involves a violation of the spirit and intent of the law, or is merely an indication of commendable precaution upon the part of the applicants. In such cases the Department endeavors, so far as possible, to ascertain the motives of the parties involved and to decide the case in such a way as, on the one hand, to permit of no violation or evasion of the intent of the statute, and, on the other hand, to avoid if possible the rejection on technical grounds of aliens who are shown to be of a commendably cautious disposition, and who in most instances belong to the very best element of foreigners that seek to come among us.

In several respects, as pointed out in the report of the Commissioner-General, the provisions of law dealing with this subject need to be strengthened. This is particularly true of the penal clauses, which do not now always operate to bring to justice parties responsible for the importation of contract laborers. It would be especially desirable to authorize the preinvestigation of the claims of employers who seek the benefit of the exception under which skilled labor may be imported if labor of like kind can not be found in this country. It is as important that the benefit of this exception shall be granted in deserving cases as that the general provisions of the law shall be enforced in undeserving ones. The present practice, based upon the statute, does not permit of the predetermination of this question, and skilled laborers must come to a port, seek entry, and, if rejected, appeal to the Department before the question can be decided.

A number of important prosecutions of importers of contract laborers have been instituted during the year and fairly satisfactory results obtained. Several typical cases of this kind are set forth in the Commissioner-General's report.

CHINESE IMMIGRATION.

The statutes relating to the immigration of Chinese, commonly called the "Chinese-exclusion laws," have now existed, more or less completely, for about a quarter of a century, and by the reenactment of those statutes in 1902, "without modification, limitation, or condition," the policy of excluding Chinese laborers assumed a permanent character. The Commissioner-General in his report for 1909, as in those for several preceding years, devotes considerable space to an explanation of the many serious defects in the methods prescribed by those laws as compared with methods more recently developed under the general immigration statutes. These Chinese-exclusion laws have been so construed, administratively and judicially, as often to give unnecessary embarrassment to persons of the Chinese race. They were enacted at a time when there was little desire upon the part of Chinese, other than laborers, to enter the United States. Under the treaty and laws a practice grew up which gave the description of the classes excluded by the terms of the statute its broadest scope, while the definition of the classes exempted was given a narrow meaning. The Commissioner-General is now endeavoring, without in any sense surrendering the real purpose of the law, to have it so administered as to give the smallest degree of embarrassment and the least grounds for complaint.

In the report of my predecessor for the fiscal year 1908 a comparison was drawn between the results accomplished in the arrest and deportation by executive process of aliens of other races unlawfully resident in the United States with the results accomplished in the arrest of Chinese by judicial process under the exclusion laws. The argument of that comparison is unanswerable. The determination of the status of an alien found within the country is essentially an executive act, to the exercise of which the administrative machinery is well adapted, while the attempt to reach the same result by judicial processes is necessarily met with delay. A similar comparison for the past fiscal year shows that 2,124 aliens were deported under the administrative process prescribed by the immigration act. In the accomplishment of this, practically no difficulty, delay, or injustice arose. On the other hand, of the 836 Chinese arrested, and the 445 similar cases which remained pending at the close of the previous year (a total of 1,281), 39 died or escaped, 189 were discharged, 665 were deported, and 338 cases remained pending. Notwithstanding the fact that almost 90 per cent of the Chinese involved were apprehended in sections immediately on the land boundaries and obviously had but just entered, delays and miscarriages of justice were frequent, not to mention the enormous expense occasioned both the Chinese and the Government.

I earnestly urge the adoption of the recommendation made in my predecessor's last report that the Chinese immigration service be consolidated with the general service. I am persuaded that such a course would promote efficiency and economy and a more harmonious operation of the law.

The plan under which officials of the State Department stationed in China cooperate with this Department in the enforcement of section 6 of the act of July 5, 1884, in accordance with which members of the exempt classes of Chinese are supplied with certificates assuring, in the absence of fraud, their admission, has continued to operate with entire satisfaction. Of these exempt classes 507 applied during the past year, 484 of whom were admitted and only 18 deported, and the majority of the deportations were necessitated by the fact that the aliens were afflicted with dangerous contagious diseases, and not by the discovery of fraud. It is customary in these cases to make no further inspection than is necessary to identify the alien presenting the certificate with the person named therein, unless it is apparent on the face of the certificate or from the appearance and conduct of the applicant that the alien is not in fact a member of the exempt classes, in which event a sufficient examination is made to reach a conclusion.

In 1908 the Department authorized, on the recommendation of the Commissioner-General, the adoption of a plan under which all American citizens of the Chinese race residing in the Hawaiian Islands could be furnished with a certificate of identity that affords them protection and the right of prompt ingress and egress. This proved so satisfactory that during the past year the Commissioner-General recommended that a similar plan be adopted with respect to all Chinese hereafter admitted to the mainland, either as members of the "section 6" class, as domiciled merchants, or as the wives or minor children of such classes and merchants, or as American citizens by birth. This recommendation was approved, and it is believed the arrangement will be of benefit both to the Chinese and to the Government. A regulation has also been adopted by the Department with the purpose of affording to Chinese residents of claimed American birth a means of establishing such claim before the administrative officers in advance of a projected trip abroad. By this rule a Chinaman of the said claimed status is, upon proving it, furnished with a return certificate under which his prompt readmission at the port through which he departs is insured.

In the above respects, and in every way consistently possible, the interests of the Chinese have been carefully guarded, the Department proceeding upon the belief that no precaution should be omitted to prevent the giving of undue embarrassment in the administration of a law drawn in unusually drastic terms and enforced of necessity in a rigid manner.

DIVISION OF INFORMATION.

This Division, which was established on July 1, 1907, and has for its function the promotion of "a beneficial distribution of aliens admitted into the United States among the several States and Territories desiring immigration," has directed a total of 5,008 persons to various localities—840 during the fiscal year 1908 and 4,168 during the fiscal year 1909. Of the total number thus involved, 2,565 were distributed among agricultural communities and received employment as farmers or farm laborers.

Common laborers to the number of 1,215 and domestics to the number of 269 were directed to work, the latter for the most part being the wives of men sent to the farms. One hundred and ninety-two children accompanied their parents.

Of the 168 who were directed to the mining regions, it is probable that many were employed as common laborers. The 599 remaining were divided among 72 occupations. Many of these can not be classed as skilled trades, 68 persons being woodsmen and 31 settlers on land.

Of the total directed, only 20 failed to reach their destinations. Of this number, the cost of transportation had been advanced by employers in 11 cases. Disappointment in 7 of these cases was avoided by directing alternate men without transportation cost to employers.

Forty States and one Territory are represented in the field of activity, no one so far as known having been directed to Florida, Idaho, Louisiana, Nevada, Utah, Washington, Wyoming, or Arizona.

New York State was selected by 2,202 and New Jersey by 676, the applicants naturally choosing the near-by States by reason of cheaper transportation thereto. In Vermont 300 were located, in Pennsylvania 220, and in Illinois 152, the balance being divided among the other States with the exceptions above noted.

Forty-five nationalities are represented in the distribution. Of those directed to employment, 1,028 were Poles, 879 Germans, 428 Russians, 406 Swedes, 256 Italians, 221 Norwegians, 202 Danes, 127 Finns, 73 Irish, 59 English, 43 Swiss, and 8 Scotch, the balance being divided among other nations, as shown in detail in the report of the Commissioner-General of Immigration.

The records of the branch offices at New York, N. Y., Baltimore, Md., and Galveston, Tex., show that 26,477 applicants sought and obtained information. These figures do not show the entire number, as many applicants represented groups ranging from 5 to 50, and care was exercised not to count an applicant twice.

Skilled workers, professional men, journalists, and scientists to the number of 2,823 sought the aid of the Division, but no assistance was rendered, as its activities were principally confined to distributing laborers and domestics.

Some idea of the progress made in the brief time the Division has been in existence may be gained from the following report of the branch office in New York City, showing the number for whom employment has thus far been secured:

January 1 to June 30, 1908	815
July 1 to December 31, 1908	1,636
January 1 to June 30, 1909	2,176

Particular care is exercised to direct no one to a place where he could be used to replace labor already employed. The demand for men is so great from sources that require additional help that this restriction did not affect the number directed, as in general the supply of good men does not meet the demand.

One of the sources of opposition to the work of the Division is the unscrupulous type of employment agent who deals in foreign-born labor for his livelihood. The inspector in charge at New York states that agents of this type warn immigrants against applying to the Division, giving as the reason that if they do they will be deported on account of being out of work. Each man directed by the Division means $2 or $3 less income for some agent, and as the applicant is liable to secure permanent employment through the Division a greater loss is sustained by the agents in that he will not return to be sold to some other employer.

In the furtherance of the Division's work the commissioners of immigration and inspectors in charge were instructed to cooperate to the fullest extent. It is noted that the inspector in charge at Galveston, Tex., provided 129 applicants with information that resulted in their securing employment as farm and common laborers.

Correspondence has also been had with state agencies and state boards of immigration, and harmonious working arrangements are being established as the work progresses.

The results accruing are largely traceable to an insistent demand for men to take the places of those who have deserted the farm for the city. Employers were found ready not only to seek the aid of the Division, but also in many instances to advance the cost of transportation in the hope of securing the much-needed help. A large number of letters testify to the satisfaction of the employers concerning the character of the men secured; and as the aliens themselves become educated to the opportunities which await them away from congested centers of civilization, it is believed that in larger degree a beneficial distribution will be effected through the efforts of the Division of Information to bring the agriculturists and the unemployed aliens into communication.

DIVISION OF NATURALIZATION.

Declarations of intention to the number of 143,212 were filed with clerks of courts exercising naturalization proceedings during the fiscal year 1909. Compared with 136,725 in 1908, this was an increase of 6,487. Of those filed in 1909, 282 were by native-born Americans who, having renounced their allegiance to the United States, returned and took the preliminary step toward resuming their original status. There was a decrease of 1,700 in the number of petitions for naturalization filed, the totals for 1908 and 1909 being, respectively, 43,878 and 42,178. The number of certificates of naturalization issued, however, shows an increase of 11,820, the total in 1909 being 37,337, against 25,517 in 1908; while there was an increase of practically 100 per cent in the number of petitioners who were denied citizenship, the total being 6,341 as compared with 3,330 in 1908 and 250 in 1907. The denials in most instances were based rather upon the failure of petitioners to comply with the requirements of the law than upon lack of the necessary qualifications.

During the year the number of courts exercising naturalization jurisdiction increased 150—from 2,244 to 2,394. This increase was confined altogether to state courts. In fact, a few of the federal courts which entertained naturalization jurisdiction in the fiscal year 1908 have apparently discontinued business of this character.

A total of 1,013 cases were submitted to the Division by the Steamboat-Inspection Service for inquiry into the validity of certificates of naturalization. Investigation of these cases disclosed the fact that 35 of the certificates had been illegally procured, many of them being held by persons who actually maintain a residence in Canada and come to the United States during the open season on the Lakes only for the purpose of securing employment as pilots. Of 14 certificates investigated at the instance of the Civil Service Commission 6 were ascertained to have been illegally procured.

By correspondence with the clerks of courts entitled under the law to naturalize aliens it was ascertained that since the act of June 29, 1906, became effective there have been filed illegally with the clerks of said courts 163 declarations of intention, and that by the same courts 192 orders of naturalization have been issued in disregard of the provisions of the above-mentioned act. All of these cases were reported to the Department of Justice for appropriate action.

Under the criminal provisions of the naturalization law prosecutions were instituted in 35 cases, with the result that in 7 cases fines were imposed and in 6 jail sentences were inflicted, while 5 resulted

Much of the time of the census employees during the fiscal year was devoted to preparations for the Thirteenth Census, to be taken in 1910. The creation of the permanent Census Bureau has, as was anticipated, proved a very great advantage in facilitating such preparation and avoiding the excessive haste which was necessary formerly when the entire census force had to be organized de novo between the time of the adoption of the census act by Congress and the date of the actual enumeration.

THE THIRTEENTH CENSUS ACT.

The existence of the permanent Census Bureau has largely obviated any disadvantage which might have arisen otherwise from the fact that the act of Congress providing for the Thirteenth and subsequent decennial censuses was not passed and approved until July 2, 1909, a date much nearer to the time of the actual enumeration than in the case of most of the preceding census acts.

The principal respects in which the Thirteenth Census Act differs from that providing for the Twelfth Census are as follows:

(1) The present act provides for a census of mining statistics in 1910, while a census of mining was not taken in 1900, but was taken in 1902. There is an obvious advantage in having the census of mining cover the same period of time as the censuses of manufactures and agriculture.

(2) On the other hand, the Thirteenth Census Act makes no provision for special statistics of births and deaths during the census year, as was required at the Twelfth Census. It had been found impossible to secure accurate statistics of births and deaths by census methods, and the Census Bureau now confines itself to the publication of annual statistics covering those areas in which state and municipal governments maintain efficient registration systems—areas which are rapidly being extended, in large part through the influence of the Census Bureau.

(3) The census of population is to be taken in April instead of June, as formerly, largely for the reason that fewer people are absent from their homes in April than in June.

(4) The censuses of manufactures and mining are to cover the calendar year 1909. By the Twelfth Census Act the inquiry concerning manufactures covered the fiscal year of each concern ending next preceding June 1, 1900, but practically in most cases covered the year 1899. This definite change, which was originally suggested at the time of the publication of the results of the census of 1900, will make it possible to put field agents at the task of collecting manufacturing statistics in January, 1910, and will materially facilitate the completion of the report within the time limit fixed by law.

(5) The act provides for the appointment of the temporary clerical force necessary for the census work after civil-service examination, which was not required by previous acts.

APPROPRIATION FOR THE THIRTEENTH CENSUS.

As stated in the annual report of my predecessor for 1908, the Director of the Census estimated the cost of taking the Thirteenth Census, and at the same time continuing the regular work of the Census Bureau for the three-year "census period" ending June 30, 1912, at $14,117,000, of which $12,930,000 was estimated as the cost of the Thirteenth Census proper. It is still believed that this estimated expense will not be exceeded, notwithstanding the fact that it is substantially the same amount as was spent upon the Twelfth Census, since which there has been an increase of approximately 20 per cent in the population to be enumerated and a still greater increase in the volume of agriculture, manufacturing, and mining. On June 29, 1909, an appropriation of $10,000,000 was made by Congress for the salaries and necessary expenses of the Thirteenth Census. This appropriation is not limited to the current fiscal year, but it is probable that the greater part of it will be required during that time, as the cost of collecting statistics, which is the greatest element of the total expense, will mainly fall during the present fiscal year. A further appropriation, therefore, will be necessary to cover the cost of tabulation and publication to be incurred during the remainder of the census period.

TABULATING MACHINERY.

During the fiscal year the Bureau completed its designs and models for a punching machine and a tabulating machine to be used in handling the population statistics of 1910, and since the end of the year contracts have been entered into for the construction of 300 of the punching and 100 of the tabulating machines. The total cost of these machines of both types, under the contract, will be $122,800, to which about $30,000 must be added to cover the cost of materials furnished the contractors and of the counters used in connection with the tabulating machines, which are to be constructed in the machine shop of the Bureau itself. It is certain that these new machines will enable each operator to turn out a decidedly larger number of cards than was possible during the Twelfth Census, and thus very materially reduce the cost of tabulation. Experiments are still under way with regard to automatic tabulating machines of even greater efficiency.

At the Twelfth Census the statistics of agriculture were also handled by the punching of cards and the use of tabulating machines. Because of the elaborate character of the data required on the farm schedule, a large number of cards were provided for each farm. The

Bureau will probably abandon the card system in the agricultural census of 1910, and use instead either "typewriter adding machines" or ordinary adding machines.

ORGANIZATION OF BUREAU FOR THIRTEENTH CENSUS WORK.

The existence of a permanent Bureau renders the task of organizing the office work in connection with the Thirteenth Census comparatively simple. During the Twelfth Census there existed five principal divisions, each headed by a chief statistician, namely, the divisions of Population, Manufactures, Agriculture, Vital Statistics, and Methods and Results. All of these divisions were continued in existence as part of the permanent census organization after the completion of the Twelfth Census, and each has taken up from time to time special investigations appropriate to its general field, although certain special investigations not naturally falling to the field of any one of the existing divisions have been assigned more or less arbitrarily.

These divisions have for some time past been preparing for the work of the new Census, and most that will still be necessary to perfect the organization of the force for the Thirteenth Census is an increase in the number of clerks, especially of the lower grades. A Division of Mining has been created to take charge of the mining census provided for by the new law. This division is subject to the general supervision of the chief statistician of manufactures, and under the immediate control of an expert chief of division and an expert special agent. The provision of the Thirteenth Census Act for the positions of Assistant Director of the Census, appointment clerk, and geographer have greatly facilitated the administrative and the technical work of the Bureau.

An examination for the additional clerical force required for the Thirteenth Census work was held on October 23 by the Civil Service Commission. Although the law does not require any examination for special agents, it was deemed wise to hold such an examination throughout the country with a view to securing as competent employees of this class as possible. This examination was held on November 3. These special agents will be employed chiefly to collect the statistics of manufactures and mines and quarries.

The statistics of population and agriculture will be collected, under the direction of the supervisors of the census, by enumerators. Of the 330 supervisors provided for by law all but two or three have already been appointed by the President during the recess of the Senate. The enumerators, of whom about 65,000 will be needed, are by law required to be designated by the supervisors subject to the approval of the Director of the Census. In order that that approval may be intelligently exercised, as well as in order to assist the supervisors in selecting competent persons, an examination for enumerators will be provided. This will be open to all candidates. The papers will be forwarded to the supervisors, who will be directed to examine them and to pay due regard to them in making their selections, although they will not necessarily in every case select those whose examination papers grade the highest. The supervisors will then designate for each enumeration district one of the persons who took the examination, but will forward all the papers in order that the Director may determine whether the persons designated are competent.

THE CENSUS SCHEDULES.

The Director of the Census and his permanent force of expert assistants, together with a number of temporary expert special agents, have given careful attention to the preparation of the schedules that are to be used for collecting the various classes of statistics. While the general contents of the schedules are prescribed by law, the form and detail of them are left to the determination of the Census Bureau. The aim has been to simplify the schedules as much as possible, in order to reduce the amount of work of the enumerators or special agents who collect the statistics, and to reduce the danger of errors in judgment on their part in interpreting the questions. In the schedules of manufactures and mining a number of questions formerly asked have been eliminated, partly for the purpose of simplification and partly because of objections raised by manufacturers and mine operators regarding the alleged inquisitorial character of these inquiries. The instructions to the enumerators and special agents have also been revised with great care.

BUREAU OF STATISTICS.

The Bureau of Statistics during the year materially increased its usefulness to the commercial interests through the publication of the Statistical Abstract of Foreign Countries, on which it has been engaged for several years; the readjustment of the Statistical Abstract of the United States and addition thereto of many important statistical statements; and the enlargement of the classification of articles imported and exported.

The Statistical Abstract of Foreign Countries presents the records of the imports and exports of all the principal countries for a long term of years; their trade with other countries, and the principal articles which form their imports and exports, the latter being stated with reference to the probable wants of the importers and exporters of the United States in studying commercial opportunities in various parts of the world. The work as completed in the current year brings down to date the earlier figures of total trade and presents for the first time the details of the trade of each country by articles. The statements in this publication have been compiled from the official records of the governments represented, and all have been transformed from the language, currency, weights, and measures of the respective countries to those of the United States, thus presenting a complete picture of world commerce in the principal articles in which the importers, exporters, consumers, and producers of the United States are interested in convenient terms for reference and covering a long period of years.

The readjustment of the Statistical Abstract of the United States has been accomplished with but slight addition to the total number of pages, space for the new matter having been obtained by the omission of certain features not now essential to this publication.

Preliminary steps have been taken during the year looking to a marked improvement in the promptness of presentation of the records of imports and exports. Under existing laws and regulations governing the reports of collectors of customs to the Bureau, the monthly record of imports and exports can not be presented with the promptness desirable. The Bureau has entered upon a careful study of the methods by which trade statistics are collected in other countries, and is formulating a plan by which it is believed the Department of Commerce and Labor will be able, through the cooperation of the collectors of customs, to present the monthly and annual records of imports and exports with much greater promptness than hitherto and with no material increase in expenditure.

COASTWISE AND INTERNAL COMMERCE OF THE UNITED STATES.

The coastwise commerce of the United States is the one important feature of our trade for which statistics are not now available. The value of merchandise moving between the cities on the coasts of the United States, including those on the Great Lakes, is probably greater than that of all the merchandise exported to foreign countries, and it is considered especially desirable that a complete record be established of this important interchange of commodities between all the great sections of a country producing, in its varied climatic and physical sections, the several requirements of a great industrial community. The system of internal-commerce reports established by the Bureau during the past few years has produced statistics of very considerable importance regarding the concentration of principal articles of commerce at the great interior points and their movements thence toward the coast. The work of recording the coastwise commerce on the Great Lakes, undertaken by the Bureau in 1900, has also been successful, and in each year since 1901 the Bureau has presented to the country a record of that important feature of our internal commerce, this record now being sufficiently complete to permit a comparison of present trade conditions on the Great Lakes and at the principal cities with like conditions for several earlier years.

It is the Department's desire to extend this work to the Atlantic, Pacific, and Gulf coasts of the United States. While records of the movement of a few articles on the coasts have been established, the Bureau desires to greatly enlarge its activities and has made a systematic effort to obtain the cooperation of steamship companies engaged in coastwise commerce along the coasts. Thus far efforts along this line have been only partially successful, though it is hoped that the necessary cooperation of those steamship companies not already participating in this work may be obtained.

FOREIGN COMMERCE OF THE UNITED STATES.

The foreign commerce of the fiscal year, as recorded by the Bureau of Statistics, showed a marked increase in value of imports and a decline in value of exports when compared with the immediately preceding year. The increase in imports occurred chiefly in materials for use in manufacturing. Foodstuffs showed an advance of 37 million dollars and materials for use in manufacturing an increase of 114 millions, while manufactures showed a decline of 32 millions. In exports, foodstuffs showed a falling off of 83 million dollars, crude materials for use in manufacturing a fall of 36 millions, manufactures for further use in manufacturing a fall of 30 millions, and manufactures ready for consumption a fall of 49 millions.

The causes of the increased importation of both foodstuffs and manufacturers' materials are apparently found chiefly in the increased business activities in the fiscal year 1909 when compared with 1908, while the fact that prices of manufacturers' materials in 1909 were in many cases lower than in earlier years indicates that the increase in quantities of those materials imported is even greater than that shown by mere figures of values. The falling off in exportation of foodstuffs is due in part to increased consumption at home and in part to increasing supplies of meats, corn, and wheat reaching the European markets from other parts of the world. The reduction in value of manufacturers' materials exported is probably due to lower prices of cotton in 1909 than in the immediately preceding year, with which comparison is made. The fall in value of manufactures exported, whether for further use in manufacturing or for consumption, occurred chiefly in manufactures of iron and steel, of which the value of the exports during the fiscal year 1909 fell 39 million dollars below that of the immediately preceding year, this fall being due partly to lower prices and partly to a reduction in demand from foreign countries. The total value of imports in the fiscal year 1909 was $1,311,920,224, against $1,194,341,792 in the immediately preceding year; and the total value of exports, $1,663,011,104 in 1909, against $1,860,773,346 in 1908. The falling off in exports is apparently due in part at least to a general reduction in imports by other countries, since merchandise from the United States formed in 1908 a larger percentage of the imports of the principal countries of the world than in the immediately preceding years.

COORDINATION OF STATISTICAL WORK.

The departmental committee appointed during the prior fiscal year to consider the coordination of the statistical work of the Department recommended that the Bureau of Manufactures and the Bureau of Statistics be consolidated. In the consideration of preliminary action with the view of carrying out this recommendation the question arose whether such consolidation could be legally made without express authority of Congress, and whether appropriations for either of the bureaus would be available for the consolidated bureau, and an opinion on this point was obtained from the Comptroller of the Treasury. In this opinion, dated July 27, 1909, the Comptroller points out that the organic act of February 14, 1903, *creates* the Bureau of Manufactures and provides that the Bureau of Statistics of the Treasury Department and the Bureau of Foreign Commerce of the State Department should be consolidated and transferred to this Department to constitute one bureau to be called the Bureau of Statistics, and he was of opinion that while section 4 of the act referred to gives the Secretary power and authority to rearrange the statistical work of the bureaus and offices confided to said Department and to consolidate any of the statistical bureaus and offices *transferred* to said Department, it does not authorize him to consolidate bureaus expressly created by the act, and that such bureaus should be maintained as created.

This decision was afterwards confirmed by an opinion of the Attorney-General. If the consolidation is to be had, additional authority must therefore be given by Congress, and I recommend that legislation to this end be asked. The report of March 2, 1908, to Secretary Straus, made by a committee of which Lawrence O. Murray was chairman, and which report was approved by Professors Edwin R. A. Seligman and J. W. Jenks and Mr. H. Parker Willis, seems to demonstrate the wisdom of the proposed consolidation. It would serve to concentrate work; it would dispense with some duplication, and it would result in general economy. The reasons which existed at the time for the conclusions reached by the committee are, if anything, strengthened by the creation since then of the Tariff Board, and by the larger activity of the State Department in the same general field of inquiry. A proper cooperation of these several agencies seems to demand the closest possible organization of each, while at present the tendency is to duplication of work and to dissipation of effort.

dollars and materials for use in manufacturing an increase of 114 millions, while manufactures showed a decline of 32 millions. In exports, foodstuffs showed a falling off of 83 million dollars, crude materials for use in manufacturing a fall of 36 millions, manufactures for further use in manufacturing a fall of 30 millions, and manufactures ready for consumption a fall of 49 millions.

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BUREAU OF MANUFACTURES.

The continued expansion of the work of the Bureau of Manufactures furnishes unmistakable evidence of increasing interest on the part of American manufacturers and merchants in the foreign trade of the country. This improvement is attributable mainly to the fact that our manufacturers and merchants have recognized the importance of acquainting themselves with conditions abroad and with the wants of the people there before entering foreign markets.

The Bureau of Manufactures has contributed largely to this improved condition through the circulation of its publications and by means of other agencies of its initiation. Since its organization the Bureau has persistently adhered to the policy of obtaining early and accurate information about the physical, commercial, and financial conditions of every country of the world; the quantities of materials of every description imported; the preferences, prejudices, habits, tastes, and purchasing power per capita of the people, and other details believed to be helpful in securing the introduction of American products or increased sales of those found already in the markets. The Bureau's efforts in this direction have been of great value to manufacturers and merchants engaged in foreign trade and helpful to those seeking to enter that trade, and in proportion as it becomes known to business men that such information is in possession of the Bureau the demands upon it increase.

FOREIGN TRADE OPPORTUNITIES.

A most effective agency of the Bureau in extending foreign trade is the "Foreign Opportunities" column published from time to time in Daily Consular and Trade Reports. The information is furnished by consular officers and special agents, and is concisely stated in brief paragraphs and entered under serial numbers. During the year such paragraphs, each furnishing an opportunity for the sale of merchandise abroad, were published to the number of 1,282. It is noticeable that there has been a decided increase in the number of manufacturers who are applying for this class of information, which indicates that efforts of the Bureau to bring manufacturers at home into direct communication with importing merchants abroad are meeting with success.

CONFIDENTIAL BULLETINS AND CIRCULARS.

In addition to the above-described method of promulgating foreign opportunities, the Bureau issues confidential bulletins and circulars containing information in regard to particular industries that require immediate attention. These confidential communications are mailed direct to those who are known to have facilities for performing the required service. During the year a large number of such circulars, with explanatory blueprints and specifications, were sent out, and resulted in securing a number of orders for the shipment of American manufactured products.

The value of this particular service would be materially enhanced if provision were made for authorizing consular officers to expend a reasonable sum of money to procure several sets of blueprints, specifications, etc., in cases that offer opportunities for the extension of American trade. Under existing conditions a single set only of these necessary papers is transmitted to the Bureau of Manufactures, and this set must be circulated in turn to numerous applicants. This method of conveying to our manufacturers information that might result in the sale of their products fails in large measure to accomplish the desired object, as time is an important factor and several weeks are at times required to transmit specifications to applicants. With several sets of these important papers interested parties could be simultaneously made acquainted with requirements and the chances for securing foreign contracts vastly improved.

WORK OF SPECIAL AGENTS.

The work of the special agents during the year was mainly performed in Europe. These experienced and expert men, by their technical descriptions and expert analyses of conditions and agencies in the countries visited, have rendered valuable service to the great industrial interests of the country. The investigations during the year covered cotton fabrics (and to a limited degree the woolen industry of the United Kingdom), the fabrication and employment of machine tools, the flour-milling industry, the sale and consumption of cottonseed products, the pottery industry, the iron and steel industry, and the boot and shoe industry. Preliminary reports of the several agents were as a rule published in the Daily Consular and Trade Reports when received, and subsequently issued in pamphlet form and transmitted to Congress.

The importance to the Government of a force of trained and expert men who have passed from technical schools in which fundamentals are taught to the great industrial establishments in which theories are tested and applied, and their value to the country in creating new and extending old lines of trade, can not be too highly estimated. It is significant that several of the principal commercial nations have introduced this method for promoting their foreign trade and have assigned to special agents much of the work that has been performed hitherto by diplomatic representatives.

WORK OF THE TARIFF DIVISION

During the year the tariffs of Italy, Brazil, Australia, the United Kingdom, Turks and Caicos islands, and the Bahamas, British West Indies, were published, as were tariffs on petroleum and petroleum products in foreign countries, the export tariffs of all foreign countries, and a monograph containing the laws and regulations governing the treatment of commercial travelers in various countries. The Bureau also published translations of the tariff bill now pending before the French Parliament and the commercial agreement between France and Canada, which is expected to go into effect in the near future.

In response to requests of this Department, diplomatic and consular officers are furnishing an increasing number of reports in regard to tariff legislation in the countries to which they are respectively accredited. Great care has to be taken in editing these reports to insure accuracy of translation of the laws and decrees to which they refer. During the year reports as to tariff legislation were received from 49 countries, some of which were represented by several reports, all requiring examination and annotation.

PUBLICATIONS OF THE BUREAU.

Reports from diplomatic and consular officers and special agents are published and widely circulated through the medium of Daily Consular and Trade Reports. The demands for this publication from business men have pushed the circulation to the statutory limit, 10,000 copies, and notwithstanding attempts to secure relief by frequent revision of the mailing list the Bureau is unable to meet popular needs. The circulation of the monthly edition of Consular and Trade Reports is also steadily advancing, having reached nearly 8,000. The limitation on the distribution of the daily edition is cause for complaint on the part of business men whose requests for the publication must necessarily be denied. It also causes much embarrassment to the Department, as no explanation that can be offered will satisfy applicants. It is recommended that authority be given to extend the edition of Daily Consular and Trade Reports to meet the needs of the service, if necessary by making a small charge to cover the cost of printing.

Tariffs of foreign countries are published in pamphlet form and constitute what is known as "Tariff Series." Twenty-one different tariffs have been published, changes in a number of them later requiring supplemental publications. Reports of special agents are assembled and published, and are transmitted to Congress as required by law.

During the year the several publications of the Bureau aggregated 3,140,100 copies, to which the daily edition of Consular and Trade Reports contributed 2,969,000 and the monthly edition 91,000 copies.

NECESSITY FOR EXTENSION OF WORK.

Finally, there can be little doubt that the work of collecting and distributing information, whether carried on by the Bureau of Manufactures as now constituted or after the proposed consolidation, must be extended. The comparatively small number of agents has necessarily compelled the Bureau to specialize to a great extent. Certain industries have been inquired into; others have not been touched. New ones have been taken up only to dismiss earlier ones from attention. Such a system brings about inequality of service at all times and does not permit of comprehensive observation at any time. The information collected has secured a number of valuable contracts abroad, but the Bureau has so far not been able to do enough to stimulate American producers generally to compete for foreign trade.

BUREAU OF NAVIGATION.

OUTPUT OF AMERICAN SHIPYARDS.

The record output of our shipyards during the fiscal year 1908, as anticipated, proved to be the culmination of a decade of exceptional activity in shipbuilding. During the past fiscal year merchant vessels built and documented in the United States numbered 1,247, of only 238,090 gross tons, the smallest product since 1898, yet larger than the average annual output of the decade ended that year. Under normal conditions our shipyards may now be expected to complete annually about 400,000 gross tons, and unless the unforeseen occur an approach to that product may be looked for during the current fiscal year. Our shipbuilding is confined to the needs of coastwise or domestic transportation and to naval or government construction. Of late years we have built fewer steel steamships for foreign trade than ten years ago.

Progress in constructing the Panama Canal should encourage our shipbuilders, and when the canal is completed a large increase in commerce by water between our Atlantic and Pacific coasts must follow. Under our coastwise laws this commerce will be conducted in American steamships, and it is not too soon now to begin planning the types of steamships best adapted for trade through the canal. Last year only one ocean steel steamship of over 4,000 gross tons was built. The steady increase in the construction of such ships which may now confidently be looked for should do something to reduce the difference in the cost of building here and abroad, which has been a large factor in causing the decline of our over-sea shipping. By extending from two to six months the time during which vessels built wholly or partly of free imported materials may engage in the coasting trade, the new tariff law tends further to reduce that difference.

On June 30, 1909, the total documented merchant shipping of the United States comprised 25,688 vessels, aggregating 7,388,755 gross tons. Over one-third of this tonnage is employed on the Great Lakes, where through the liberality of Congress in improving channels and harbors we have built a merchant fleet greater than that under any foreign flag, except the British and the German, and have developed what is probably the most efficient and economical system of water transportation in the world. Through natural conditions and the coastwise laws it is practically without foreign competition.

AMERICAN SHIPS ENGAGED IN FOREIGN TRADE.

Our shipping registered for foreign trade on June 30, 1909, consisted of 1,633 vessels of 887,505 gross tons, but even these modest figures are an overstatement of our resources in international competition. They include a number of vessels which have outlived their usefulness and others which, though registered, are engaged in trades from which foreign ships are excluded. For effective competition in foreign trade any one of several of the great British and German steamship companies is better equipped than the entire steam fleet in that trade under the American flag. If a change in our policy of restricting the national register to vessels built at home alone would remedy this situation, few would oppose such a change. It is significant, however, that during the past year three of our trans-Atlantic steamships, built recently in the United States, were transferred to the Belgian flag.

At the beginning of the current fiscal year we had only four American steamships regularly engaged in European trade, only five in trade with Asia, and none with South America below the Caribbean, or with Australia or Africa. Under existing conditions the number will not increase, and may decrease. Last year our exports and imports by sea in round numbers amounted to $2,721,000,000, of which only $258,657,000, or 9.5 per cent, was carried in American ships.

OCEAN MAILS AND COMMERCE.

With good reason we are building a powerful navy, and Congress has been generous in its appropriations for the purpose. The argument for an adequate merchant marine is fully as strong and should appeal with equal force to men of all parties. By the common consent of civilized nations the policy of discriminating duties was abandoned long ago. The conditions of our foreign commerce render it particularly inapplicable to our own situation. At the present time foreign governments are spending annually about $45,000,000 upon certain types of merchant steamships. The form of expenditure varies, of course, and the objects differ. In some instances the prime object is to promote regular transportation facilities, in others to provide reserve cruisers or army transports, while the creation of a body of naval reserve seamen, the encouragement of shipbuilding, and regular and swift carrying of ocean mails are reasons for other appropriations. Whatever the purpose, the result in each case is the same—the increase of the nation's merchant marine and merchant seamen. It is not material that in some instances the amounts are described as subsidies and in others as payments for services rendered. Nor do I deem the amounts and conditions of appropriations essential. The fact, common to all these expenditures, suffices—that each nation desires certain types of ocean steamships under its own flag on certain routes, and where they do not exist it is willing to pay enough to get them.

The creation of a merchant marine in foreign trade proportionate in any degree to our rank among nations must be a slow undertaking. The approaching completion of the Panama Canal, as already indicated, will create some favorable conditions, but it also imposes the obligation of early action. Several measures to this end are now pending in Congress. While differing in important respects, they all provide for an extension of the ocean-mail act of 1891. The special reasons for American ocean-mail steamship lines to South America, and by way of Hawaii to Australia and to Asia, including the Philippines, have been repeatedly set forth, as have been the reasons for increasing the per-mile compensation of American ocean mail steamships, under the conditions prescribed by the act of 1891, on routes to South America, Asia, and Australia.

TONNAGE DUTIES.

Tonnage duties during the fiscal year amounted to $1,052,374.37, of which only $84,662.37 was paid by American vessels. By section 36 of the tariff act of August 5, 1909, the law relating to tonnage duties was changed in two particulars to accord with recommendations made for several years by the Department. The so-called reciprocal tonnage duties exemption sections, enacted in 1884 and extended in 1886, were repealed. Theoretically those sections were designed to secure exemptions for American ships abroad, but, as we have few ships crossing the oceans, they of course receive few benefits. The revenue surrendered for the direct benefit of foreign ships during the past twenty-four years has amounted to fully $2,000,000. The repeal of those sections should add annually about $110,000 to our revenues. This addition made it possible to reduce from 3 to 2 cents per ton the rate imposed on vessels from foreign ports in North America, South America bordering on the Caribbean, and the islands of our hemisphere—a reduction estimated at $56,000.

WORK OF SHIPPING COMMISSIONERS.

Shipping commissioners at 19 seaports have shipped, reshipped, or discharged 341,980 seamen on American vessels during the past year, an increase of 34,681 over the previous year. In the decade the number of men shipped, reshipped, and discharged annually has increased from 142,632 to 341,980, while the cost to the Government in salaries to commissioners and clerks has increased from $55,619.13 to $62,944.79, which shows that the service has been economically administered. Its approval by American shipping interests is shown by its growth, for resort to shipping commissioners is mainly optional.

MARITIME-LAW CONFERENCE.

An international diplomatic conference on maritime law was held at Brussels in October to review drafts of treaties relating to collisions, salvage, shipowners' liability, and maritime mortgages and liens, at which our Government was ably represented. These subjects have been considered carefully by admiralty lawyers of various nations for some years past, and the Brussels Conference was designed to bring the various propositions considered into shape for definite action by treaty-making powers. The advantage of uniform laws on these subjects is manifest, and the results of the conference are awaited with interest in American maritime and exporting circles. The conference will reassemble in April. If international uniformity shall not prove feasible, Congress could legislate upon the subject of liens on vessels for supplies and repairs, and thus bring about uniformity in our own country on that subject.

INSTALLATION OF WIRELESS TELEGRAPHY.

Within the past two years wireless telegraphy has demonstrated its value as one of the most useful appliances for saving life and property at sea. A practice voluntarily adopted by the most humane and progressive shipowners seems to be a proper basis of legislation for the regulation of those less attentive to the present needs of mankind. Of 282 steamships which carried steerage passengers to and from the United States under the passenger act of 1882 during the first half of this year, 143 were equipped with wireless installations. The vessels so equipped were, as a rule, the largest and best in the trade, and together carry on each trip about 174,000 passengers, of whom 147,000 are steerage passengers. The 139 steamships not equipped carry about 6,000 cabin and 55,000 steerage passengers.

In our coastwise passenger trade, of ocean steamers carrying 50 passengers or more over routes of 200 miles or more, 97, with a capacity of 32,000 passengers, were equipped with wireless, while 70, with a capacity of 18,000, were not so equipped. Through the efforts of the Navy Department, the War Department, and private enterprise the coasts of the mainland of the United States, and even of Alaska, Hawaii, Porto Rico, and the Canal Zone, are now so provided with wireless shore stations that a vessel at sea almost anywhere within 300 miles of the shore can communicate with the land as well as usually with other vessels. The passage of a bill requiring wireless installations as a measure of safety on ocean passenger steamers carrying more than a given number of passengers over more than a given distance is recommended. Such a law would be legislative approbation of a measure of prudence, voluntarily adopted by some, which should be obligatory on all similarly placed. Experience has shown the value of the appliance. Such a bill should provide that the different systems of communication must interchange with one another messages involving safety. If it can be done, the measure should also provide against excessive charges for apparatus or for messages connected with safety. This legislation need not await a solution of the larger questions of international regulation of wireless telegraphy involved in the treaty drafted by the Berlin Conference of 1906, in which the United States participated.

ENFORCEMENT OF NAVIGATION LAWS.

Offenses against the navigation and inspection laws occur, of course, usually on the water. Collectors of customs charged with the enforcement of these laws have not, as a rule, facilities for being on the water. Formerly revenue cutters were at their disposal. These cutters are now large seagoing steamers and the cost of operation is considerable. Small launches, chartered from time to time, would be equally effective and more economical in enforcing the laws mentioned. Under section 2763 of the Revised Statutes collectors of customs, with the approval of the Secretary of the Treasury, may use such small vessels to detect frauds on the revenue. The navigation and inspection laws could be more generally and better enforced if section 2763 were amended to permit the use of launches for that purpose, which I recommend, and in this recommendation the Secretary of the Treasury concurs.

Within ten years conditions of navigation have been appreciably changed by the rapid growth of the motor-boat industry. The "rules of the road," enacted before these boats came into general use, require in some cases useless or impossible equipment, and other laws fail to provide adequately for equipment. The laws should be adjusted to the conditions.

The subjects mentioned and others are considered in detail in the report of the Commissioner of Navigation, to which attention is invited.

STEAMBOAT-INSPECTION SERVICE.

During the calendar year ended December 31, 1908, there were transported on vessels which by law are required to report the number carried, 413,531,305 passengers. The total number of accidents resulting in loss of life during this period was 74, an increase over the previous year of 10, and the number of lives lost 278, including passengers and crew, a decrease of 107 from the previous year. Of the total number of lives lost, 154 were from causes beyond the power of the Service to avert (such as suicide and carelessness), leaving 124 lives lost that can be fairly chargeable to accident, collision, or foundering. The total number of 278 lives lost, when compared with the four hundred-odd millions of passengers that were carried, makes a ratio of one life lost, including passengers and crew, for every 1,440,000 passengers carried. If we add to the number of passengers carried the large number of persons comprising the crews of vessels under the jurisdiction of this Service, the ratio will be considerably lessened, and indicates a condition of safety that is not shown by any other method of transportation.

The number of vessels inspected and certified in the fiscal year 1909 was 8,381, an increase of 191 in number, with an increased tonnage of 383,627, as compared with the previous fiscal year. Of the vessels certified, 7,152 were domestic steamers, with a tonnage of 4,389,741, a decrease of 251 steamers and 2,632 tons; 419 were foreign passenger steamers, with a tonnage of 2,890,903, a decrease of 33 in number and of 25,369 in tons. Sail vessels and barges to the number of 36 were inspected, with a tonnage of 18,127, a decrease from the previous year of 8 in number and 2,379 in tons; and also 448 seagoing barges of 411,740 gross tons were inspected for the first time, under act of Congress approved May 28, 1908.

Motor vessels with a tonnage of 18,111 were inspected and certified to the number of 326, an increase of 35 in number and 2,267 in tons.

Of all classes of vessels inspected, the Pacific coast has an increase of 22 in number and 54,649 in tons; the Atlantic coast an increase of 288 in number and 393,735 in tons; the western rivers a decrease of 24 in number and 3,694 in tons; the Great Lakes a decrease of 107 in number and 61,557 in tons; and the Gulf coast an increase of 12 in number and 494 in tons.

The decrease in the number and tonnage of vessels inspected on the Great Lakes was due undoubtedly to the fact that owing to the conditions which prevailed in that district during the last half of the fiscal year a large number of vessels were not put in commission and still remain idle.

Licenses were issued during the year to 15,331 officers of all grades, while of 1,362 applicants who were examined for color-blindness 36 were rejected and 1,326 passed. As compared with the previous fiscal year these figures show an increase of 519 in the number of applicants examined and of 535 in the number of applicants passed.

At the various mills 3,059 steel plates for the construction of marine boilers were inspected (a decrease from the previous year of 632), and of this number 285 were rejected. In addition to these plates there were inspected at the mills a large number of steel bars for braces and stay bolts in marine boilers, and also several hundred plates for stock and repair purposes. Many requests were received from other branches and departments of the Government for tests of boiler material at the mills. These received the attention of the Service, and prompt reports were rendered to the proper officials.

During the year there were examined and tested at the various manufactories 161,206 life-preservers, of which only 770 were rejected, which, compared with the previous year, indicates an improvement in the manufacture of those articles.

The total expenses of the Service were $524,823.79, an increase over the previous fiscal year of $2,631.72. Its personnel at the close of the fiscal year consisted of 259 officers and clerks and 1 messenger. Two boards of local inspectors, one at San Juan, P. R., and one at Honolulu, Hawaii, were added to the force to meet the growing demands of the Service.

LIGHT-HOUSE ESTABLISHMENT.

During the fiscal year 1909 the Light-House Establishment, which is charged with the maintenance of, and has jurisdiction over, all aids to navigation, established 78 lights, 15 fog-signals, 4 submarine signals, 196 daymarks, 388 buoys, and 162 post-lantern lights.

Of the 8 light-house tenders and 7 light-vessels commissioned during the year 3 of each class were built for service on the Pacific coast, which was reached on January 23, 1909. The voyage from the General Light-House Depot, at Tompkinsville, N. Y., where the vessels were fitted out, through the Straits of Magellan to San Francisco, was without mishap. After slight repairs at San Francisco the vessels assumed their respective stations.

The efficiency of the service regarding light-vessels is likely to be impaired at an early date unless some remedial action is taken. Owing to age and deterioration, due to constant service on exposed stations, it has been found necessary to withdraw 3 of the regular station vessels and supply their places with vessels intended for relief duty. Upon survey, 1 vessel was condemned as being no longer fit for outside work, and the 2 others are in need of such extensive repairs that it will take several months to accomplish the work. The withdrawal of 3 of the 6 relief light-vessels available for outside stations on the Atlantic and Gulf coasts leaves but 3 vessels available for the relief of 26 outside stations scattered from Maine to Texas.

The installation at stations of the incandescent oil-vapor system of lighting, which is a strong rival of electricity and acetylene gas, is progressing as rapidly as practicable.

The approaching completion and opening to commercial uses of the Ambrose Channel in New York Harbor required the matter of its marking by the best system of buoyage to be given serious consideration, as it is felt that this important deep-water approach to New York deserves the most complete and effective system of navigational aids extant. The use of acetylene buoys was decided upon, and bids were invited for the number required. In the meanwhile the increasing inefficiency of some of the types in use indicated that the most appropriate buoy had not been selected. With a view to determining the system best adapted for the use of the service, apparatus of several makers has been ordered and will soon be subjected to competitive tests. In the meanwhile the matter of finally lighting Ambrose Channel will be held in abeyance until these tests for endurance, efficiency, and adaptability have been completed.

By the act of March 4, 1909, Congress authorized the employment of not to exceed 1,700 light-house and fog-signal keepers and laborers attending other lights for the fiscal year 1910, an increase of 50 over the preceding year. On June 30, 1909, keepers to the number of 1,643 were employed, which was within 7 of the number authorized for that year. During the present fiscal year it is estimated that 61 lights requiring the services of 47 keepers will go into commission, thus leaving but 10 authorized positions available for such stations as may be established during the fiscal year 1911. That number is inadequate, when the rapid development of this branch of the public service is taken into consideration, and I therefore recommend that the authorized number of light-house and fog-signal keepers and laborers attending other lights be increased to 1,750.

During the year special attention has been given to the buoyage of the western rivers. As a result of investigation and experiment a suitable type of buoy has been adopted, and it is intended to place about 150 of these buoys in the Mississippi River above St. Louis this fall.

The act of March 1, 1905, authorizing the transfer of a strip of land occupied by the Light-House Establishment at Tompkinsville, N. Y., appropriated the proceeds of the sale of this property as an additional amount to the general maintenance appropriation for repairing and improving light-houses, etc., for the fiscal year 1906 The sale was consummated June 10, 1909, the United States receiving the net sum of $45,894.70 for the property, which amount was covered into the Treasury. Owing to the delay in making the transfer, this money is not available for the restoration of the remaining property at the depot, consisting of rebuilding retaining walls, and the removal and reconstruction of houses and buildings, which must be done before the city of New York can take possession. I have therefore to recommend that the sum of $45,894.70 be reappropriated and made available for the restoration of the grounds and buildings at the General Light-House Depot.

The reasons given by my predecessor in his report for the fiscal year 1908 still exist for legislation that will create 3 additional light-house districts, comprising the Territory of Alaska, the island of Porto Rico and naval station at Guantanamo, Cuba, and the Hawaiian Islands. The rapid commercial development of Alaska demands an extension of the service impracticable of accomplishment without the creation of an independent district embracing that Territory. The recommendation to increase the number of districts to not exceeding 19 is therefore renewed.

In order to meet the demands of the increasing commerce of the Yukon River, Alaska, the inspector of one of the Mississippi River districts was ordered to make a complete examination of the river and recommend the establishment of such necessary aids to navigation as were deemed advisable.

At the suggestion of the Light-House Board, and as the result of a resolution adopted at one of its meetings, I authorized the chairman, Rear-Admiral Marix, U. S. Navy, to visit such European countries as would be advisable for the purpose of studying the organization of the light-house services abroad, and to inspect and report upon such modern aids to navigation as are not in use in the United States.

In accordance with this authority, the chairman, accompanied by the superintendent of the General Light-House Depot, at Tompkinsville, Mr. A. C. Conover, sailed from New York on June 8 with the intention of visiting England, Scotland, France, Holland, Denmark, Sweden, Norway, and Germany. The results of his investigation will be printed in the forthcoming annual report of the Light-House Board.

I renew the recommendation contained in the report of my predecessor that legislation be enacted authorizing the Board to pay the surgical and hospital expenses of seamen employed on board vessels of the Light-House Establishment injured in the performance of duty.

I am persuaded that a very material saving can be effected in the Light-House Establishment by a more or less radical reorganization. Just how the system now in vogue found acceptance it is unnecessary to describe. There appears to be no doubt that it has moved far from the purpose of its founders, and that to-day few care to stand sponsor for its continuance. Repeated reports in favor of a more direct and simple administration have been submitted, and I see no reason for further delay in making at least a beginning. The chief difficulties appear to be these:

First. The Light-House Establishment has no executive head with authority and responsibility.

Second. The service is divided between representatives of the Navy and the Army, and inevitably invites friction and increases cost.

Third. The number of light-house tenders could be kept down, and expenses generally could be reduced, by abolishing the system of separate tenders for district inspectors and for engineers by placing an entire district in charge of one officer instead of two, and by making all inconsiderable repairs on the spot instead of having tenders haul the materials long distances.

The work done appears to be of a high order, but a system of divided responsibility and dual representation is necessarily expensive and is in conflict with the rules of good administration. A complete reorganization can probably not be had without legislative authority; but it is believed that the essential difficulties can be cured by administrative action, and so much it is now proposed to do.

BUREAU OF FISHERIES.

PROPAGATION OF FOOD FISHES.

The important work of stocking the public waters of the country with food fishes and of providing food and game fishes for private ponds, lakes, and streams has proceeded along established lines. Thirty-five fish-cultural stations and twice as many substations and auxiliaries were operated during the year in thirty States and Territories, while all of the States and Territories shared in the output of the hatcheries.

All of the usual species of food and game fishes have been cultivated, some of them in unprecedentedly large numbers. Species of which there has been a noteworthy increase in production are red or sockeye salmon, landlocked salmon, steelhead trout, blackspotted trout, lake trout, pike perch, white perch, winter flounder, and catfishes. The output of shad, whitefish, chinook salmon, Atlantic salmon, brook trout, grayling, black basses, yellow perch, cod, pollock, and lobster either has shown no marked change or for reasons connected with the fisheries or due to meteorological conditions has fallen below the previous year's record. The artificial propagation of the smelt of the northeast coast has been taken up for the first time with considerable success, and preliminary work done looking to the cultivation of the white bass of the south-central region. The newly constructed salmon station at Afognak, Alaska, has been successfully opened, and over 39 million young red salmon have been liberated therefrom as the initial output.

A new fish-cultural record has been made, and in 1909 for the first time the distributions passed the 3-billion mark. The total number of young and adult fish deposited in public and private waters and of eggs transferred to state hatcheries for final incubation was over 3,117,000,000.

The growing interest in the utilization of waters for the cultivation of food and game fishes is a hopeful sign, and is, to a certain extent, gauged by the demands made on the Bureau for desirable fishes for that purpose. During the year over 10,000 applications were received for fish to be used in stocking waters more or less under private jurisdiction. This is an increase of 25 per cent over 1907 and of 400 per cent over 1900.

The time is ripe for active cooperation between the Bureau of Fisheries and various other branches of the government service that have to do with the natural and artificial waters of the country. Matters of great importance to fish life are involved in the reclamation and irrigation work and in the construction of dams in navigable streams, and it is desirable that a definite policy affecting this entire subject be determined on.

SCIENTIFIC RESEARCHES AND EXPERIMENTS.

The Bureau has continued its cooperation with the Coast and Geodetic Survey and the Maryland Shell Fish Commission in surveying the oyster beds of Maryland, in accordance with act of Congress. This survey, which probably will be completed during the fiscal year 1910, is the most extensive, most accurate, and most elaborate work of the kind ever undertaken. Arrangements have been made for a similar survey, on a small scale and with a definite object in view, of certain oyster grounds in Virginia.

Reference was made in previous reports to the very practical experimental oyster work conducted by the Bureau in Louisiana, which was brought to a conclusion in January, 1909. As the immediate outcome, extensive areas of previously unproductive bottoms have been brought under cultivation, and phenomenally large crops of high-grade oysters marketed therefrom in a very short time. The State has received in a single season from this new source of revenue an amount that offsets all the expenses of the Bureau's experiments, and immense possibilities for oyster culture have been provided, so that two bays producing no oysters when the work began have been shown to be capable of yielding an amount of oysters equal to the entire output of the State at the present time.

In view of the very valuable industries dependent on the pearly fresh-water mussels, the Bureau has conducted extensive investigations addressed to the biology of the mussels and the physics of the waters they inhabit. The streams to which particular attention has been given with reference to their mussel fauna are the Mississippi in Wisconsin and Iowa, the Minnesota, the Iowa, the Illinois, the Ohio, the Wabash, the Maumee, and the Kentucky. In this work the Bureau has had the efficient cooperation of the universities of Minnesota, Iowa, and Missouri and of various other educational institutions in the Mississippi Basin, as well as persons connected with the mussel-fishery and pearl-button industry. The information now being collected will be of great value in connection with the cultivation and preservation of the mussels.

Congress having directed the establishment in the upper Mississippi Valley of a biological station for the propagation of fresh-water mussels, available sites in Iowa, Wisconsin, Minnesota, Illinois, and Indiana were examined, and a location near Fairport, Iowa, was found to possess the greatest advantages and was accordingly selected.

In continuation of the systematic examination of the waters of the country with reference to their general biological and physical characters, Sebago Lake and connecting waters in Maine, Lake Champlain in Vermont, and various small lakes in Wisconsin have been under investigation. The work in Wisconsin has been in cooperation with the State Geological and Natural History Survey, and results of great importance in fish culture have been obtained. Special studies and experiments relating to western salmon and trout, diamond-back terrapin, and various other aquatic creatures have been conducted.

Such progress has been made in experimental sponge culture at certain points on the coast of Florida that the Bureau is now in position to recommend the growing of sponges from cuttings as a commercial enterprise, and will shortly make public the methods and outcome of the experiments that have extended over a series of years. The outcome of the past season's operations has been the production of marketable sponges, of an average weight of 1¼ ounces, in twenty-nine months. It is understood that a private company has been organized to carry on sponge culture on a commercial basis, following the methods made known by the Bureau; and it is believed that very important economic results must accrue to prospective sponge planters, while at the same time the stability of the sponge crop is assured.

Investigators from all parts of the country have availed themselves of the facilities afforded at the seaside laboratories at Woods Hole, Mass., and Beaufort, N. C., for the study of problems connected with marine life and physics. Such investigations have a more or less intimate relation to aquiculture and the commercial fisheries, and during the past year matters of direct economic importance received an unusual amount of attention.

The steamer *Albatross*, which has for several years been engaged in a survey of the fishing grounds and aquatic resources of the Philippine Islands, has actively prosecuted the work and covered a large territory, securing information that will be valuable in developing the commercial fisheries of the archipelago. This survey will be brought to a close during the fiscal year 1910.

COMMERCIAL FISHERIES.

Inquiries of the Bureau relative to and in the direct interest of the commercial fisheries of the country were conducted as usual. The general canvass of the fishing districts for the collection of data on the methods of fishing and the apparatus pertaining thereto has continued, and a large territory has been covered. A special canvass of the fishery for shad and alewives in Chesapeake Bay was begun in the spring of 1909, and the steamer *Fish Hawk* was detailed to locate and plot the fixed devices set for these fish. The number of pound and other nets in Chesapeake Bay and tributaries has become so great that the migrating schools of fish are to a very large extent prevented from reaching the stretches of the rivers where the spawning grounds are located, and in consequence the trend of the fishery is steadily downward, and artificial as well as natural production has been reduced to a very low ebb. It seems to be incumbent on the Bureau to obtain authentic data with which it can demonstrate to the States interested the grave conditions that exist, so that remedial measures may be taken.

The erratic movements of the schools of mackerel on the east coast are not understood by even the most experienced fishermen; and notwithstanding that a large body of mackerel has appeared each season for the past five years, the fishermen have been unable to keep in touch with the fish except for a few weeks. The Bureau has been prompted to respond to requests for assistance coming from the New England fishing interests, and in April detailed the schooner *Grampus*, with an experienced mackerel fisherman on board, to make an extensive cruise on all the fishing grounds from Cape Hatteras to Labrador with a view to determining the whereabouts of this valuable fish and gaining other useful information thereon. Many vessels are dependent on this fishery, and it is hoped that the inquiry will yield some practical results.

The valuable vessel fisheries centering at Gloucester and Boston, representing about seven-eighths of the offshore food-fish fisheries of the Atlantic coast, have received the special attention of the Bureau, and elaborate and accurate statistics of their yield have been taken for a long series of years, such figures affording an invaluable basis for gauging the condition and trend of the industry. Monthly and annual bulletins, giving detailed returns by species and grounds, are issued and distributed to the trade. During the calendar year 1908 over 6,600 fares of fish were landed at these ports by American fishing vessels, the aggregate catch being more than 181 million pounds, valued at $4,629,000.

At the request of the Bureau of the Census, four agents of the Bureau of Fisheries were detailed to assist in taking a general census of the fisheries for 1908.

ALASKAN SALMON FISHERIES.

The administration of the law regulating the very valuable salmon fisheries of Alaska was satisfactorily performed, and the service has become more efficient than ever before. The agents were active in enforcing the law, securing 53 indictments against the owners of traps operated in violation of it. A conviction was obtained in each case, and fines to the amount of $7,950 were imposed. These first convictions under the present law do not indicate that there are more violations than formerly, but rather that the agents are more successful in detecting the few violators. There is a healthy public sentiment throughout Alaska in favor of a strict observance of the law for the protection of the salmon, and there is reason to believe that this sentiment is increasing among those engaged in the fisheries.

The season of 1908 was the most successful in the history of the salmon fishery, and the run of fish in southeastern and western Alaska was especially noteworthy. There were taken for commercial purposes over 43,300,000 fish, which as sold in a canned, salted, smoked, or fresh condition had a value of $10,683,000.

Five salmon hatcheries operated by private fishing companies under the provisions of the salmon law handled 78,910,000 eggs of the redfish and liberated 73,158,750 fry in adjacent waters. At the two government hatcheries 87,960,000 redfish fry were produced and planted.

General statistics of the Alaska fisheries incidentally gathered in connection with the salmon inspection show that in 1908 the industry gave employment to 13,337 persons and represented an investment of $10,319,784. The value of the products was $11,847,443.

ALASKAN FUR-SEAL SERVICE.

The Alaskan fur-seal service, formerly a distinct branch of the Department and administered through the Secretary's office, was transferred on December 28, 1908, to the Bureau of Fisheries, where a special board has been formed with general direction over all matters connected with the Pribilof Islands. In order that the Department might be in position to avail itself of the expert knowledge possessed by various naturalists and officials who, through visits to the seal islands and through previous duty on fur-seal commissions, are familiar with conditions on the islands and the problems involved in the proper care of the seal herd and the natives dependent thereon, the Department appointed on January 13, 1909, an advisory board for the fur-seal service, consisting of Dr. David Starr Jordan, Dr. Leonhard Stejneger, Dr. C. Hart Merriam, Mr. Frederic A. Lucas, Hon. Edwin W. Sims, Hon. Frank H. Hitchcock, and Mr. Charles H. Townsend.

The report of the agent at the seal fisheries for the season ended July 31, 1909, shows that the lessee secured 14,336 skins, of which 11,022 were taken on St. Paul Island and 3,314 on St. George Island. The quota of 15,000 skins was not secured for the reason that the requisite number of bachelor seals did not appear in the drives during the legal season. Statistics of seals driven for killing show that on St. Paul Island 31 per cent of the seals and on St. George Island 37 per cent were released as being too large, too small, or marked as breeders. There was a noteworthy scarcity of small seals in the drives on St. Paul. A count of the breeding bulls made July 13 to 16, inclusive, disclosed 1,071 bulls with harems and 352 other bulls on St. Paul Island, and 267 bulls with harems and 80 other bulls on St. George Island. The quota of bachelors to be marked and released for breeding purposes was obtained in the latter part of June; of the 2,000 bachelors 2 years and 3 years old thus marked, 800 of each age were on St. Paul Island and 200 of each age on St. George Island. In view of a surplus of bulls and of an increase in the number of bulls on the breeding grounds as compared with 1908, further reservations of young males for breeding purposes appear to be unnecessary for several years.

The information on hand indicates that there has been an approximate decrease of 10 per cent in the number of breeding females since 1908, less than 50,000 such seals being now left. The entire herd of seals on the Pribilofs now numbers less than 140,000. The destruction which these seal herds have suffered during the last ten years forces the subject of pelagic sealing upon public attention. At the present rate of decrease the end is a matter of a few years. With that prospect in view it is difficult to see what authority can be interested to maintain a system of such uneconomic and brutal destruction.

INTERNATIONAL FISHERY RELATIONS.

Pending the settlement of the question of the rights of American fishermen in Newfoundland waters, vessels engaged in the herring fishery on the "treaty shore" of that Province have been operating under the terms of a modus vivendi. In compliance with the wishes of the Department of State, a representative of the Bureau of Fisheries has been for four years detailed to remain on the grounds during the fishing season and keep the Government advised of the conditions under which our fishermen were plying their trade. In the past fiscal year this detail extended from September to January, during a part of which time the revenue cutter *Gresham* was assigned to this inquiry and served as the headquarters of the Bureau's representative. The forty-two vessels that were employed in the fishery secured frozen and salted herring to the value of $237,744.

Pursuant to the terms of a treaty between the United States and Great Britain, signed April 8, 1908, the control of the fisheries of the waters contiguous to and forming a part of the northern boundary of the United States is vested in the Governments of the United States and the Dominion of Canada, and the administration of the fisheries is intrusted to an International Fisheries Commission composed of one member from each country. This Commission has made field investigations and drawn up uniform regulations for the protection and preservation of the food fishes of the boundary waters from Passamaquoddy Bay to Puget Sound. The report of the Commission has been submitted and now awaits formal approval and promulgation by the two Governments.

INTERNATIONAL FISHERY CONGRESS.

Responding to an invitation extended by this Department and by the American Fisheries Society, the Fourth International Fishery Congress convened in the city of Washington in September, 1908. The membership of the congress numbered over four hundred. Fifteen countries were represented by official delegates, and 11 other countries by delegates of societies and by private individuals; 43 American States and Territories and 20 American societies, clubs, and institutions had duly appointed representatives. Many of the leading fishery authorities and workers of the world were in attendance, and the gathering was the most important of the kind ever held in the Western Hemisphere. A large number of papers of exceptional merit were presented, which, with the discussions they elicited, covered nearly every phase of fishing, fish culture, fishery legislation, and scientific investigation. The Department has assumed the publication of the proceedings and papers of the congress, and reserved for this purpose the 1908 volume of the Bulletin of the Bureau of Fisheries. The next congress will meet in Rome in 1911.

COAST AND GEODETIC SURVEY.

FIELD WORK.

The field work of the Survey during the last fiscal year covered a wide range of subjects, and operations were conducted not only within the United States but also in several of its insular possessions.

In cooperation with the insular government satisfactory progress was made in charting the unsurveyed coasts of the Philippine Islands, and about 10 per cent of the estimated extent of the coasts was covered during the year.

In Alaska vessels and men have been engaged in the work of charting unsurveyed coasts where charts are urgently needed to meet the constantly increasing demands of commerce.

The first survey of Porto Rican waters has been completed, except for a small amount of offshore sounding.

The usual progress was made in the collection and preparation for publication of all obtainable information useful to navigators relating to the coasts of the United States and to coasts under its jurisdiction.

The long wire drag now in use by the Survey was considerably modified and improved during the year. The use of this or some similar apparatus is believed to be the only way of definitely determining whether many important bodies of water are free from dangers to navigation.

Under the direction of the Superintendent as Commissioner representing the United States, considerable progress was made in recovering and marking the international boundary between the United States and Canada and in the demarcation of the Alaska boundary. The old monuments recovered and the new ones established on the United States and Canada boundary between Lake Osoyoos and Point Roberts were inspected and numbered, and the recovery and re-marking of the line between Point Roberts, Washington, and the summit of the Rocky Mountains was completed. A vista has been opened along the line through the wooded sections and the 409 miles of boundary is marked by 272 monuments, many of which are the original monuments recovered and restored. Progress was made by United States parties in surveying and marking the boundary east of the Rocky Mountains in the following localities: On the eastern slope of the mountains, along the Pigeon River (at the west end of Lake Superior), along the eastern boundary of Maine, and along the St.

Croix River. In the demarcation of the Alaska boundary the line in southeast Alaska was marked at the crossing of the Alsek River and preliminary work was done at the crossing of the Unuk and Leduc rivers.

On the one hundred and forty-first meridian the line was located to a point 195 miles south of the Yukon River and surveyed to a point 145 miles south. The location of the line north of the river is progressing satisfactorily. In this connection attention is again called to the importance of having a triangulation extended from the initial point of the boundary on the Yukon River down the great valley to its mouth, to furnish a connected line of geographic positions along the Yukon to correlate detached portions of work already in progress or authorized for the economic development of the country and to form a basis for all future surveys in the valley of one of the great rivers of the world.

In response to a request from the governors of the States of Louisiana and Mississippi, and under the authority of the Secretary of Commerce and Labor, an officer located and marked the water boundary between those States as established in a decree of the United States Supreme Court.

The triangulation of the city of New York by the corporation, under the direction of an officer of the Survey, was completed and the results published. As a result of this cooperation a valuable coordination of certain portions of the coast triangulation has been secured at a nominal cost to the United States and to the expressed satisfaction of the city authorities.

Astronomic observations to determine latitude, longitude, or azimuth were made in 13 States and Territories and in British Columbia. Observations to determine the relative force of gravity were made in 6 States and in the District of Columbia, standard levels were extended in 7 States and Territories, and topographic surveys were made in 8 States.

Triangulation was done in 12 States, and supplementary triangulation, including the determination of the geographic positions of aids to navigation, was continued along the coasts of Massachusetts, Connecticut, Maryland, North Carolina, and the west coast of Florida. This work was completed along the east coast of Florida and the Florida keys to Key West.

The investigation with the long-wire drag of the navigable waters on the coast of Maine and in the vicinity of Key West, Fla., was continued, and other hydrographic work was done in the waters of 7 States.

The collection of information for revised editions of the two volumes of the Coast Pilot covering the coast from Point Judith, Rhode Island, to the entrance to Chesapeake Bay was completed in the field and a new edition of one volume prepared and published. A revised edition of the Coast Pilot covering the coasts of California, Oregon, and Washington was prepared and published.

The magnetic survey of the country was continued by making observations at 265 stations distributed over 36 States and Territories, and numerous observations were made at sea, on board the surveying vessels, on their cruises to and from fields of work in various portions of the country.

A continuous record was also obtained of the variations in the force of terrestrial magnetism at five observatories equipped with self-registering instruments. Continuous tide observations were obtained at six stations on the Atlantic and Gulf coasts and at three stations on the Pacific coast.

In Alaska surveys were made in Dixon Entrance, Controller Bay, Prince William Sound, Cook Inlet, Shelikof Strait, and along the shores of Kodiak Island. A revised edition of the Coast Pilot volume covering the coast from Dixon Entrance to Yakutat Bay, and sailing directions from Yakutat Bay to Cook Inlet, were prepared and published.

In the Philippine Islands one Coast and Geodetic Survey steamer and four steamers loaned to the Survey by the insular government were engaged in charting unsurveyed portions of the coasts, and other surveying parties were stationed on land and used chartered launches. Surveys were made along 10 per cent of the total estimated extent of the coasts.

The organization of the work in the Philippine Islands remains unchanged. The usual computations of field observations, including the establishment of tidal planes, reduction of soundings, and preparation of magnetic data for compasses, were made at the suboffice in Manila, and drawings for new charts and new editions of charts were prepared and sent to Washington for completion and publication. New editions of the sailing directions for the islands are prepared and published as often as necessary, and a monthly Notice to Mariners is published.

OFFICE WORK.

Good progress was made in the various branches of the office work, including computation, plotting, and discussion of the results of the work in the field, and the preparation of data for publication by chart or otherwise. The ever increasing number of requests for information have been promptly met and are a gratifying evidence of the wide appreciation of the value of the archives of the Survey.

Among reports covering the more important work of the Survey during the year that have been published or are in course of preparation may be mentioned the following:

A new adjustment of the results of precise leveling in the United States.

A discussion of the "Figure of the Earth and Isostasy from Measurements in the United States."

Results of observations at the five magnetic observatories in past years.

Tables of predicted tides for numerous ports on the coasts of the United States and in foreign countries.

The amount appropriated for the Coast and Geodetic Survey for the fiscal year ended June 30, 1909, and accounted for by the Bureau disbursing agent was $996,290, of which $245,000 was for manning and equipping the vessels of the Survey, $40,000 for repairs and maintenance of vessels, and $50,000 for office expenses. The remainder of the appropriation was divided between the expenses of parties in the field, $325,400, and salaries of field and office forces, $335,890.

A detailed description of the work of the year with maps illustrating its progress will be found in the annual report of the Superintendent.

INTERNATIONAL GEODETIC CONFERENCE.

On the invitation of Great Britain the International Geodetic Conference was convened in London and Cambridge on September 21, 1909. This convention is held under the terms of a formal convention between the signatory powers which are parties to it, and its main object is to determine the figure of the earth, which is a prime factor in all astronomical measurements. The conference combines and utilizes the extensive geodetic operations in the various countries of the world to the best advantage, suggesting improvement and economy in methods and indicating a plan of work which will best further its aims.

Great Britain, recognizing the importance of the results likely to be the outcome of this convention, called her sons from India, from Egypt, from Australia, from South Africa, and from Canada. Besides Canada, our Western Hemisphere is represented in the association by Argentina, Chile, Mexico, and the United States. By law our delegates are selected from the Coast and Geodetic Survey.

It gratifies me to be able to state that this Bureau was referred to as having accomplished epoch-making results by its advanced methods of conducting geodetic operations throughout the United States. In addition its publications were recommended to all countries as models of clearness and perfection of statement.

From the funds under the control of the conference an appropriation of 12,000 francs was made for instituting special latitude observations by a method devised by an American observer at one of the two international observatories located in this country and which are under the supervision of the Superintendent of the Coast and Geodetic Survey.

ARCTIC TIDAL OBSERVATIONS.

In accordance with his assignment by order of the Secretary of the Navy, Commander Robert E. Peary, previous to his departure on his last memorable polar expedition, received instructions from the Superintendent of the Coast and Geodetic Survey for obtaining a series of tidal observations within the Arctic Circle. On his return Commander Peary turned in to the Coast and Geodetic Survey Office a very complete set of records which are of great practical value in the study of the mechanism of the tides in those distant and unknown regions of the globe.

BUREAU OF STANDARDS.

The growing demand for standardized measuring instruments in every branch of science, industry, engineering, and daily trade has brought to the Bureau a volume of work unequaled since its establishment. The increased work could be handled only by devising more rapid and accurate methods of routine testing, by adopting more rigorous specifications for such instruments, and by an increase in the scientific staff and laboratory facilities. These factors have made the past year the most successful in the history of the Bureau. Tests to the number of 38,089 were made of standards, instruments, and materials, an increase of 84 per cent over the preceding year.

The results of 23 technical investigations, published during the year, cover a wide range of researches upon units, standards, instruments, and methods of measuring heat, light, and electricity. These results, while primarily contributions to the theory and technology of precision measurements, have wide industrial and scientific applications in electrical and illuminating engineering, metallurgy, optical industry, telephony, wireless telegraphy, and general technology. Existing methods of testing are being steadily improved and in many lines entirely new methods devised. The study of the defects in working standards and instruments is of keen technical interest, since by thus aiding the makers of measuring instruments to maintain accurate master standards the Bureau insures accuracy for the public at its source.

The new building, which is nearly completed, will permit the expansion of important lines of work. Although it nearly doubles the space, the work has so outgrown its present quarters that all laboratory space in the new building will be needed at once.

The work in weights and measures has grown rapidly, in some branches more than 100 per cent, due to the newly awakened interest in the subject throughout the country. High-grade standards in increasing number were submitted for test and the demand grows apace for uniform and better methods of inspecting trade weights and measures.

The Bureau maintains correspondence with all the States cooperating in the movement for correct weights and measures in trade and commerce to secure full weight and measure for the consumer. Kansas and New York have acquired new equipment for their state sealers and the standards of Massachusetts, furnished years ago by the Federal Government, are being reverified. Other States are being supplied with information regarding weights-and-measures laws and practice. With the special fund for the purpose, two inspectors will thoroughly study in the field the methods of daily trade.

The Fourth Annual Conference of State Superintendents and Inspectors of Weights and Measures of the United States, which was held at the Bureau of Standards, reflected the interest in correct trade weights and measures in all parts of the country. National commercial organizations are favorable and letters from them, received in large numbers at this conference, show that the movement has the support of the merchants of the country. The delegates favor local inspection by the States, but desire a fundamental federal statute to avoid conflict in interstate commerce, and accordingly recommend that Congress amend the pure-food law to require quantity labels on package goods.

Apparatus in large quantities has been tested for the Government departments, notably volumetric glassware used in enforcing the pure-food law and measuring apparatus in connection with the purchase of supplies. Capacity measures to the number of 10,765 were tested by new methods and apparatus developed by the Bureau. A marked improvement is evident in the quality of such apparatus since this work was begun.

In the measurement of liquid densities, good progress has been made and two important circulars were published upon the subject. The many industrial applications of hydrometry and the existing confusion of scales made it an urgent subject. Verified density tables were adopted and issued, and specifications and methods published by the Bureau to enable manufacturers to make and verify hydrometers on a uniform exact basis. Researches of this nature will be of great value to the makers and users of these useful instruments, and with enhanced accuracy the range of their application will be widely extended.

The International Electrical Commission, which met at London in October, 1908, adopted a new value for the unit of electromotive force. A new international committee on electrical units and standards, three of which are officers of the Bureau of Standards, will prepare specifications for the concrete standards and, at the Director's invitation, will conduct a joint international investigation at the Bureau. This important work will help to secure precision and international uniformity in electrical units and standards.

Progress was made in work on the primary mercurial resistance standards and the Weston standard cell, and an investigation on the electrical properties of copper and aluminum was made at the request of the American Institute of Electrical Engineers. Work on the absolute measure of electric current and resistance has been continued and a thorough study of the silver voltameter, the concrete standard of electric current, begun.

Electric instruments and magnetic specimens have been tested in larger quantities than ever, many of these tests being practically investigations of great value to the electrical industries.

The success of the Bureau in securing an agreement upon a uniform international unit of light in England, France, and America, and its adoption in the gas and electrical industries in this country, caused an increase in the Bureau unit of 1.6 per cent on July 1, 1909. The differences in the sperm candles used made the old unit unreliable and the new unit of light will be maintained by the Bureau by selected electric lamps carefully intercompared with those of other countries. Electric lamps to the number of 628,400 were sampled for the Government for inspection during the year, and tests were made of life and candlepower at the Bureau to insure satisfactory delivery. In one research, artificial illuminants were compared with daylight and a combination derived to yield a close color equivalent to sunlight. This desirable result will be useful in illuminating engineering. Standard specifications for electric lamps, including the new high efficiency lamps, have been issued for general distribution.

The work in heat measurements increased 40 per cent over the prior year. This comprises the testing of nearly all kinds of pyrometers used to measure and control high temperatures in the industries; mercurial thermometers; flash-point, viscosity, and setting-point tests of illuminating and lubricating oils; determination of heat values of combustibles, and the melting points of alloys and lubricating oils. A research was completed at the urgent request of the refrigeration industries upon the specific heats of calcium brines. These data are necessary for efficient refrigeration engineering and will be prepared for early publication.

An extended investigation of the action of platinum resistance thermometers at high temperatures was completed during the year. These important instruments are used to control various chemical operations, hardening and annealing temperatures in the arts and industries. Optical and radiation pyrometers, investigated several years ago by the Bureau, are now widely used in the industries, largely as a result of the Bureau's work. The testing of thermometers by the Bureau, to the extent of about one thousand a month, shows the demand for guaranteed accuracy in temperature measurements. The thorough calibration of thermometer makers' standards furnishes precision to the thermometer industry and through it to the entire country.

Optical methods have become so general in biology, chemistry, metallurgy, and technology in general that new optical data find almost immediate application. The Bureau has conducted important researches in radiometry and spectroscopy during the year. These are valuable in determining the properties of materials, and supplement other methods employed by the Bureau for that purpose. Besides these researches, 1,316 optical tests were made, and a complete equipment has been installed for the study and testing of photographic lenses, and new methods have been devised for testing lenses.

The optical laboratory of the Bureau also cooperates with the customs service in the testing of sugars imported at the various ports. Such analyses are made optically by the polariscope, and the duty levied only upon the percentage of pure sucrose in the raw sugar. These methods have now been placed upon a scientific basis, verified instruments and exact procedure introduced, and daily samples from all sugar ports are now tested at the Bureau to check the accuracy of such analyses at the ports. This is but one function of the polariscopic work of the Bureau, which has many other useful technical applications.

The distribution of certified sugar samples, prepared by the Bureau under conditions which insure exceptional purity, gives the engineers and chemists means to standardize the instruments used to measure the heat value of fuels, as well as to standardize the optical apparatus used to test sugars. Sugar of such high purity has not until now been available for these purposes, and the distribution of these samples by the Bureau marks a distinct step forward both in polarimetry and in heat measurements. The appreciation of this by the technical interests of the country is shown by the instant demand for these standardized sugars.

Nearly all kinds of testing involve some chemistry or require expert chemical advice. The demands for this information are such that it is possible to satisfy only the more urgent cases. These come from the Government departments and also from the general public in connection with the purchase of supplies and the preparation of proper specifications for materials.

Over two thousand tests, many of which involved elaborate investigations, were made of writing and printing inks, mucilage, lubricating and other oils, turpentine, paints, soap, rubber, boiler compounds, brines, flooring compositions, type metal, alloys, steels, glass, silks, papers, and other materials involving chemical as well as physical analyses. Investigations of the combustibility of celluloid and of naphtha soaps were completed for the Steamboat-Inspection Service and the Panama Railroad, respectively.

The distribution of analyzed and certified samples of steels and irons of definite composition has met with great success, the demand increasing 30 per cent over the previous year. This work, undertaken at the request of the American Foundrymen's Association, enables the metallurgical industries to keep constant and reliable check on their analyses, upon which depend so largely the success of the industry. The Bureau is arranging with the American Brass Founders' Association, at its request, to furnish standard analyzed samples of brass to improve the methods of brass analysis in that industry.

In anticipation of the increased facilities of the new building, preparatory work was begun on new investigations of materials and engineering instruments, and some new equipment has been purchased for delivery as soon as the new laboratory is available. Plans and specifications for the large Emery testing machine, which was authorized by Congress, are about completed, and the machine, which will be built during the coming year, will enable the Bureau to make exhaustive investigations of engineering materials.

The testing of water-current meters for the use of hydraulic engineers in gauging streams has been taken up at their request, to perfect satisfactory methods of testing. The engineering testing of pressure gauges of all kinds, anemometers, water-current meters, and water and gas meters has increased 70 per cent over the preceding year. By careful calibration of such instruments, precision is afforded directly to investigations in all parts of the country.

Physical and chemical tests were made of several thousand samples of materials—an increase of almost 100 per cent over the prior year—such as metals, building materials, paper, textiles, cordage, rubber, leather, lubricants, and many others. These tests were made largely in connection with Government purchases of supplies and materials not only for the purpose of protecting the Government in such purchases, but with a view to perfecting the standards, the specifications, and the methods of testing employed. Information has been furnished to the public and to the departments of the Government on a wide range of technical topics involving the properties of materials and the methods of measuring such properties.

OFFICE OF THE SECRETARY.

APPOINTMENT DIVISION.

The work of the Appointment Division during the year was exceedingly heavy owing to the preliminary work connected with the Thirteenth Decennial Census, the preparation of the data for the next edition of the Biennial Register, and especially the work relating to the changes made in the personnel, based upon the efficiency records recently taken.

STATISTICS OF THE PERSONNEL.

The following table shows by bureaus the number of regular positions in the Department on July 1, 1909, and the increase or decrease in each bureau as compared with July 1, 1908:

Bureau.	Statutory.	Non-statutory.	In District of Columbia.	Outside District of Columbia.	Total.	Increase.	Decrease.
Office of the Secretary	137	....	137	....	137	....	4
Bureau of Manufactures	27	10	32	5	37	3	....
Bureau of Corporations	65	55	120	....	120	16	....
Bureau of Labor	80	45	125	....	125	....	67
Light-House Establishment	41	5,441	49	5,433	5,482	....	135
Bureau of the Census	28	1,326	640	714	1,354	....	20
Coast and Geodetic Survey	246	102	206	142	348	....	3
Bureau of Statistics	55	3	58	....	58	1	....
Steamboat-Inspection Service	111	150	9	252	261	9	....
Bureau of Fisheries	338	3	79	262	341	14	....
Bureau of Navigation	23	53	23	53	76	....	....
Bureau of Immigration and Naturalization	76	1,377	81	1,372	1,453	17	....
Bureau of Standards	135	4	139	....	139	21	....
Total	1,362	8,569	1,698	8,233	9,931	81	[a] 229

[a] Net decrease, 148.

NOTE.—The items of decrease are almost entirely due to the discontinuance of mechanics, laborers, and other employees in the Light-House Service, of employees in the Bureau of Labor engaged in the work of investigating the condition of woman and child workers, now nearing completion, and of special agents in the Bureau of the Census. The items of increase are due to the creation of 48 new statutory positions, the transfer from the Department of Justice to this Department, on July 1, 1909, of 40 positions in the Bureau of Immigration and Naturalization (in the field service of which there was a reduction of 25 positions, leaving a net increase of 15), the net increase of 19 positions under lump-sum appropriations and the transfer of the 4 seal agents of Alaska to the Bureau of Fisheries.

EFFICIENCY REPORTS AND RESULTING CHANGES IN THE PERSONNEL.

It is a reasonable presumption that in a large department of the Government there is necessity for occasional inquiry into the conduct and efficiency of those who have to do with its policies and the administration of its affairs. Without such inquiry and the application of proper remedial measures there is bound to be increasing inefficiency in the service. Proceeding upon this premise I decided not only to institute a thorough inquiry with respect to the efficiency of the personnel, but also to obtain a record showing the nature of the duties performed by every employee of the Department, how well he performs them, whether he is fully earning his salary, and whether he manifests a disposition to familiarize himself with the work of the office in the sense of adding to the efficiency of the Department as a whole.

During the early part of May a question blank was prepared with the view of obtaining the desired information and sent to the bureau officers for execution. Upon receipt of the reports they were reviewed in the Appointment Division, and those which indicated that the employees were below the required standard of efficiency were made the subject of more critical and thorough examination by a committee consisting of the Assistant Secretary of the Department, the chief of the particular bureau under consideration (and occasionally other officers of the bureau), the Chief Clerk of the Department, and the Chief of the Appointment Division. In this examination the basic considerations upon which subsequent action was predicated were as follows:

First. That the Government had the right to expect the performance of a day's work for a day's pay.

Second. That the pay received should be commensurate with the character of the work performed.

Third. That the quantity and quality of work performed should not be below that which might be reasonably expected of a thoroughly efficient employee.

Fourth. That an employee should not only render efficient service in his particular position, but should also show an inclination to contribute toward the general efficiency of the office.

Fifth. That assignment to duty for which an employee is not fitted should be remedied.

Sixth. That due consideration should be given to the cases of veterans and those who have become more or less incapacitated for duty through long and faithful service.

Seventh. That an employee who has ability to work but does not give his best efforts to the Government is entitled to little or no consideration.

Eighth. That sex, politics, religion, or race should not affect an employee's standing.

The reports considered by the committee presented a great variety of conditions. For instance, in some cases it was shown that employees were performing but two, three, four, or five tenths of the amount of work that should be reasonably expected of them; in some that the employees had practically no ability to perform the work to which they were assigned; in others that the employees were receiving salaries far in excess of what they were actually earning; and in still others that circumstances such as bad habits, unfortunate temperament, and general incompatibility seriously interfered with the performance of duty. The members of the committee took up each case individually, and in reaching a conclusion they were actuated only by motives of justice, fairness, and a proper regard for their obligations as officers of the Government. As the result of their labors several employees were removed, several who would otherwise have been removed were permitted to resign, a large number were reduced (which reductions led to the promotion of a substantially corresponding number of other employees), and a still greater number were cautioned or placed on probation. Some idea of the actual results which thus far have been accomplished may be had from the following statement showing the status of the matter as it stood at the close of business on September 15:

Number of efficiency reports received	7,105
Number of reports indicating that employees were not below the required standard of efficiency	6,089
Number of reports indicating that employees *might* be below the required standard of efficiency	1,016

Upon more thorough and critical examination of the last-stated number it was decided that in 221 cases no disciplinary or other action was required. The remaining 795 cases were disposed of as follows:

By dismissal	14
By acceptance of resignations	20
By discontinuance of services	25
By demotion	119
By transfer	4
By transfer and demotion	8
By cautioning, warning, admonishing, or reprimanding	299
By placing on probation subject to further report	51
By suspension	1
Cases still pending	254

It is the opinion of the chiefs of bureaus and divisions that the system inaugurated by the Department and now being carried out to a final conclusion (and which, by the way, has since been adopted by another department) has had a most salutary effect. No employee who has been faithfully and efficiently performing his duties has been disturbed; nor has he at any time had the slightest reason for feeling uneasy. On the contrary, the few employees who have shirked their duties, who have been inefficient or generally unreliable and unworthy of confidence, have been discovered and appropriate disciplinary action has been or will be taken.

In a large department, with its many ramifications and diversity of conditions, the officer in charge must of necessity depend upon the honesty and judgment of his subordinate officials for information upon which to take official action; and this is particularly true with respect to the conduct and capacity of the personnel. While the efficiency reports show quite conclusively that certain officials have been lax in reporting upon the inefficiency of employees under their supervision and indicate that they might have postponed indefinitely making reports which would lead to the removal or reduction of some of the employees affected by the recent reports, it is thought that, in so far as those employees whose inefficiency is due to causes not under their control are concerned, the condition can be largely accounted for, and to some extent excused, on the double grounds of human sympathy and the anticipated action of Congress in providing a plan of retirement for superannuated employees.

INADEQUATE SALARIES.

Owing to the small salaries paid in positions of the lower grades, some of the bureaus have found it difficult to secure from the civil-service registers employees properly equipped to perform the duties required. Specially qualified eligibles do not care to accept appointment at less than $900, $1,000, or even $1,200 per annum, realizing that, unless through some fortunate chance vacancies occur in the higher grades, they may be compelled to remain several years at salaries entirely incommensurate with the duties expected of them. It is now quite generally conceded that private employment offers greater inducements than employment under the Government, and, quite naturally, persons who have specialized in some particular line frequently renounce the idea of entering the government service when they are tendered appointment with such inadequate salary as $600, $720, or $840 per annum. As a remedial step I am constrained to advocate the abolishment of clerical positions paying less than $900 per annum and the creation in their stead of places paying salaries of $900 or $1,000 per annum; also that there be uniformity in the compensation of persons employed as laborers.

SUPERANNUATED EMPLOYEES.

Most civilized countries have provided some system of retirement for superannuated employees. A like practice now prevails in some of the municipal governments of this country. Many corporations and large industries have similarly provided for employees who may become incapacitated by reason of old age. Humanitarian reasons may have suggested the idea, but it is gratifying to know that economy has justified it. Tenure of office necessarily retains in the service employees who have become more or less incapacitated by old age. It seems to me that this situation should be met by a law which may at once protect the employee against the hardships of old age and the Government against the loss occasioned by superannuated service.

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DISBURSING OFFICE.

APPROPRIATIONS AND DISBURSEMENTS.

The itemized statement of the disbursements from the contingent fund of the Department of Commerce and Labor, and the appropriation for "General expenses, Bureau of Standards," for the fiscal year ended June 30, 1909, required to be submitted to Congress by section 193 of the Revised Statutes of the United States, and the itemized statement of expenditures under all appropriations for propagation of food fishes during the fiscal year ended June 30, 1909, required by the act of Congress approved March 3, 1887 (24 Stat. L., 523), will be transmitted to Congress in the usual form.

The following table shows the total amounts of all annual appropriations for the various bureaus and services of the Department of Commerce and Labor for the fiscal year ended June 30, 1909, of all appropriations made for public works in the various services of the Department, which, under the law, may be disbursed without regard to any particular fiscal year, and of all permanent indefinite appropriations:

	Annual appropriations, 1909.	Appropriations for public works.	Permanent indefinite appropriations.	Total.
Office of the Secretary of Commerce and Labor	$285,340.00			$285,340.00
Bureau of Corporations	247,720.00			247,720.00
Bureau of Manufactures	78,300.00			78,300.00
Bureau of Labor	322,570.00			322,570.00
Light-House Board	48,720.00			48,720.00
Light-House Establishment	5,357,000.00			5,357,000.00
Light-houses, beacons, fog signals, etc		$812,650.00		812,650.00
Bureau of the Census	1,150,940.00			1,150,940.00
Bureau of Statistics	74,110.00			74,110.00
Office of Supervising Inspector-General, Steamboat-Inspection Service	14,440.00			14,440.00
Steamboat-Inspection Service			$506,415.54	506,415.54
Bureau of Navigation	32,380.00			32,380.00
Shipping Service	9,100.00		69,840.84	78,940.84
Refunding penalties or charges erroneously exacted			2,134.79	2,134.79
Bureau of Immigration and Naturalization	103,900.00			103,900.00
Enforcement of the Chinese-exclusion act	500,000.00			500,000.00
Expenses of regulating immigration			2,036,840.13	2,036,840.13
Immigrant stations at Ellis Island, N. Y., Philadelphia, Pa., and San Francisco, Cal.; boarding cutter and ferry steamer at San Francisco, Cal		500,000.00		500,000.00
Bureau of Standards	200,540.00	50,000.00		250,540.00
Coast and Geodetic Survey	1,018,290.00			1,018,290.00
Bureau of Fisheries	730,250.00			730,250.00
Fish hatcheries and biological station		89,500.00		89,500.00
Miscellaneous:				
Judgments, Court of Claims	3,107.59			3,107.59
Reliefs, refund of fines, etc	2,579.95			2,579.95
Total	10,179,287.54	1,452,150.00	2,615,231.30	14,246,668.84

The disbursements by the disbursing clerk of the Department of Commerce and Labor during the fiscal year ended June 30, 1909, arranged according to items of appropriation and fiscal periods of accounting are as follows:

Bureaus and titles of appropriations.	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Total.
OFFICE OF THE SECRETARY.					
Salaries, Office of Secretary of Commerce and Labor, 1908	$7,123.66	....	....	....	$7,123.66
Salaries, Office of Secretary of Commerce and Labor, 1909	30,948.17	$38,140.34	$38,410.29	$37,712.95	145,211.75
Contingent expenses, Department of Commerce and Labor, 1908	8,142.29	6,261.02	1,513.06	31.18	15,947.55
Contingent expenses, Department of Commerce and Labor, 1909	8,872.72	25,605.91	19,598.61	14,846.59	68,923.83
Rent, Department of Commerce and Labor, 1908	2,976.66	....	....	....	2,976.66
Rent, Department of Commerce and Labor, 1909	7,039.94	11,319.94	9,661.60	12,032.21	40,053.69
Salaries, agents at seal fisheries in Alaska, 1907	2,920.00	....	....	....	2,920.00
Salaries, agents at seal fisheries in Alaska, 1908	5,475.00	240.00	....	....	5,715.00
Salaries, agents at seal fisheries in Alaska, 1909	486.66	1,892.50	1,277.50	851.67	4,508.33
Supplies for native inhabitants of Alaska, 1908	4,800.00	14,486.14	....	....	19,286.14
Total	....	....	....	....	312,666.61
BUREAU OF CORPORATIONS.					
Salaries, Bureau of Corporations, 1908	3,324.55	....	....	....	3,324.55
Salaries, Bureau of Corporations, 1909	14,401.78	16,995.61	17,543.11	18,009.00	66,949.50
Salaries and expenses, special attorneys, examiners, etc., Bureau of Corporations, 1908	13,279.82	310.61	....	....	13,590.43
Salaries and expenses, special attorneys, examiners, etc., Bureau of Corporations, 1909	38,782.13	40,862.45	34,377.11	30,460.60	144,482.29
Total	....	....	....	....	228,346.77
BUREAU OF MANUFACTURES.					
Salaries, Bureau of Manufactures, 1908	1,283.36	....	....	....	1,283.36
Salaries, Bureau of Manufactures, 1909	6,611.63	8,050.56	8,193.60	8,093.21	30,949.00
Collating tariffs of foreign countries, 1908	212.51	....	....	....	212.51
Collating tariffs of foreign countries, 1909	1,062.49	1,234.35	1,275.00	1,511.89	5,083.73
Salaries and expenses, special agents, Department of Commerce and Labor, 1908	....	12.68	....	....	12.68
Salaries and expenses, special agents, Department of Commerce and Labor, 1909	....	....	2.94	3.55	6.49
Total	....	....	....	....	37,547.77
BUREAU OF LABOR.					
Salaries, Bureau of Labor, 1908	4,345.19	....	....	....	4,345.19
Salaries, Bureau of Labor, 1909	22,226.14	26,608.81	26,266.14	26,686.67	101,787.76
Miscellaneous expenses, Bureau of Labor, 1908	4,471.00	2,031.70	....	....	6,502.70
Miscellaneous expenses, Bureau of Labor, 1909	7,122.03	12,418.11	14,023.47	14,275.45	47,839.06
Library, Bureau of Labor, 1908	8.49	132.61	....	....	141.10

Bureaus and titles of appropriations.	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Total.
BUREAU OF LABOR—continued.					
Library, Bureau of Labor, 1909	$179.98	$131.28	$83.74	$133.52	$528.52
Investigating the condition of woman and child workers, 1907–8	15,042.10	172.10			15,214.20
Investigating the condition of woman and child workers, 1909	34,160.40	44,048.48	41,218.90	25,600.65	145,028.43
Total					321,886.96
STEAMBOAT-INSPECTION SERVICE.					
Salaries, office of the Supervising Inspector-General, Steamboat-Inspection Service, 1908	560.02				560.02
Salaries, office of the Supervising Inspector-General, Steamboat-Inspection Service, 1909	3,008.31	3,610.00	3,610.00	3,610.00	13,838.31
Contingent expenses, Steamboat-Inspection Service	25,475.02	19,887.29	15,777.42	23,531.73	84,671.46
Salaries, Steamboat-Inspection Service	103,624.44	104,827.56	106,907.23	106,996.11	422,355.34
Total					521,425.13
BUREAU OF STATISTICS.					
Salaries, Bureau of Statistics, 1908	2,905.81				2,905.81
Salaries, Bureau of Statistics, 1909	14,358.36	17,171.72	17,523.05	17,492.50	66,545.63
Collecting statistics relating to commerce, 1908	455.84				455.84
Collecting statistics relating to commerce, 1909	740.83	775.00	891.29	1,281.13	3,688.25
Total					73,595.53
LIGHT-HOUSE BOARD.					
Salaries, office of the Light-House Board, 1908	1,943.38				1,943.38
Salaries, office of the Light-House Board, 1909	9,991.96	12,075.21	12,179.96	12,005.01	46,252.14
Total					48,195.52
BUREAU OF NAVIGATION.					
Salaries, Bureau of Navigation, 1908	1,408.70				1,408.70
Salaries, Bureau of Navigation, 1909	6,724.96	7,550.36	8,001.57	8,020.00	30,296.89
Contingent expenses, shipping service, 1908	1,563.64	5.69			1,569.33
Contingent expenses, shipping service, 1909	640.22	1,716.88	1,729.89	1,535.19	5,622.18
Salaries, shipping service			4,801.66	9,680.41	14,482.07
Total					53,379.17
BUREAU OF STANDARDS.					
Salaries, Bureau of Standards, 1908	5,132.73				5,132.73
Salaries, Bureau of Standards, 1909	28,656.06	34,243.80	34,843.88	35,175.00	132,918.74
Equipment, Bureau of Standards, 1908	4,948.24	3,356.51			8,304.75
Equipment, Bureau of Standards, 1909	5,671.31	6,257.91	6,575.82	11,626.49	30,131.53
General expenses, Bureau of Standards, 1908	1,043.07	525.66			1,568.73
General expenses, Bureau of Standards, 1909	1,706.91	4,399.89	4,688.59	2,466.86	13,262.25
Improvement and care of grounds, Bureau of Standards, 1908	86.19				86.19
Improvement and care of grounds, Bureau of Standards, 1909	176.75	548.05	325.13	638.36	1,688.29
Laboratory, Bureau of Standards	1,600.00	4,124.51	32,364.19	34,645.76	72,734.46
Testing machine, Bureau of Standards				250.00	250.00
Total					266,077.67

Bureaus and titles of appropriations.	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Total.
BUREAU OF IMMIGRATION AND NATURALIZATION.					
Salaries, Bureau of Immigration and Naturalization, 1908	$4,141.84				$4,141.84
Salaries, Bureau of Immigration and Naturalization, 1909	20,788.99	$24,338.52	$25,488.84	$25,132.49	95,748.84
Enforcement of the Chinese-exclusion act, 1908	38,414.13	6,163.26			44,577.39
Enforcement of the Chinese-exclusion act, 1909	70,340.99	114,845.86	129,411.90	117,216.40	431,815.15
Expenses of regulating immigration	491,198.72	475,585.16	523,407.79	504,315.88	1,994,507.55
Immigrant station, Ellis Island, New York	212,787.04	308,328.82	211,283.76	130,202.75	862,602.37
Immigrant station, Galveston, Tex	93.77	6,247.84	3,800.41		10,142.02
Immigrant station, San Francisco, Cal	43,922.36	40,836.14	9,722.70	4,753.35	99,234.55
Boarding cutter, Immigration Service, San Francisco, Cal			19,800.00	2,200.00	22,000.00
Total					3,564,769.71
BUREAU OF FISHERIES.					
Salaries, Bureau of Fisheries, 1908	18,636.13	32.50			18,668.63
Salaries, Bureau of Fisheries, 1909	51,687.65	73,659.35	72,343.02	72,887.09	270,577.11
Miscellaneous expenses, Bureau of Fisheries, 1908	49,999.95	4,845.45			54,845.40
Miscellaneous expenses, Bureau of Fisheries, 1909	50,387.15	91,229.06	74,779.12	73,516.84	289,912.17
Fish hatcheries, Alaska	5,789.36	2,861.89	1,123.70	845.00	10,619.95
Biological station, Mississippi River Valley		50.99	11.47	3,927.71	3,990.17
Salaries, agents at salmon fisheries, Alaska, 1908	104.17				104.17
Salaries, agents at salmon fisheries, Alaska, 1909	520.83	625.00	1,041.66	187.51	2,375.00
Fish hatchery, Baird, Cal	43.00				43.00
Fish hatchery, Battle Creek, Cal	50.00				50.00
Fish hatchery, Boothbay Harbor, Me	1,347.39	21.00		1,212.93	2,581.32
Fish hatchery, Cold Springs, Ga				1,600.00	1,600.00
Fish hatchery, Duluth, Minn	63.90	90.50		1,877.55	2,031.95
Fish hatchery, Green Lake, Me		1,225.84	16.81		1,242.65
Fish hatchery, Iowa	140.28		926.00	27.74	1,094.02
Fish hatchery, Lake County, Colo	189.09	31.90		11.70	232.69
Fish hatchery, Mammoth Spring, Ark	177.39	2,297.96	127.64	116.21	2,719.20
Fish hatchery, Montana	13.00		61.10	242.95	317.05
Fish hatchery, Neosho, Mo	11.15	159.79	19,593.71	464.76	20,229.41
Fish hatchery, South Dakota	74.31				74.31
Fish hatchery, Tennessee			496.90	1,574.59	2,071.49
Fish hatchery, Vermont	80.58	8.00	15.00		103.58
Fish hatchery, West Virginia	31.63				31.63
Fish hatchery, Wytheville, Va			575.99	181.76	757.75
Total					686,272.65
Grand total	1,528,756.25	1,625,516.07	1,557,692.27	1,401,698.90	6,113,663.49

The following statement shows the expenditures during the fiscal year ended June 30, 1909, on account of all appropriations under the control of the Department of Commerce and Labor, giving the

total amounts disbursed by the various disbursing officers of the Department, and miscellaneous receipts for the same period:

By the disbursing clerk, Department of Commerce and Labor, on account of salaries and expenses of the Office of the Secretary of Commerce and Labor, the bureaus of Corporations, Manufactures, Labor, Statistics, Navigation, Immigration and Naturalization, Standards, and Fisheries, the Light-House Board, the Office of the Supervising Inspector-General, Steamboat-Inspection Service, expenses of regulating immigration, expenses of enforcing the Chinese-exclusion act, salaries and expenses of Steamboat-Inspection Service at large, and public works of the Immigration and Fisheries services (shown in detail in foregoing table of disbursements)	$6,113,663.49
By the engineer and naval secretaries of the Light-House Board, engineers and inspectors detailed from the Army and Navy to duty in the Light-House Establishment, and all other officers who disbursed money for the Light-House Establishment	6,183,608.18
By the disbursing clerk, Bureau of the Census, on account of salaries and expenses of the Bureau of the Census	1,083,415.27
By the special disbursing agent, Coast and Geodetic Survey, on account of salaries and expenses of the Coast and Geodetic Survey	983,326.09
By the special disbursing agents of the Immigration Service	46,636.21
By the special agents of the Department investigating trade conditions abroad, as special disbursing agents	34,818.34
By customs officers on account of witnesses' fees in steamboat investigations	585.05
By special disbursing agents, Bureau of Fisheries	47,061.53
By special disbursing agent, Bureau of Corporations	4.89
By special disbursing agent, Steamboat-Inspection Service	108.70
By warrants drawn on the Treasurer of the United States to satisfy accounts settled by the Auditor for the State and other Departments	262,226.39
Total	14,755,454.14
Miscellaneous receipts:	
Coast and Geodetic Survey—	
Sale of charts, coast pilots, and tide tables	12,293.97
Furnishing data from the archives	261.04
Bureau of Standards—For standardizing and testing weights, measures, measuring instruments, and materials	6,001.06
Bureau of Immigration and Naturalization—	
Head tax	3,243,220.00
Exclusive privileges at immigrant stations	14,016.00
Naturalization fees	186,516.75
Bureau of Navigation—	
Tonnage tax	1,054,494.47
Navigation fees	129,274.23
Bureau of Fisheries—Sale of sealskins	153,375.00
Bureau of the Census—	
Transcripts of census records	32.10
Sales of the publication "Heads of Families, 1790"	6,935.70
Light-House Establishment—Proceeds of sale of condemned property, damages, rentals, etc	19,725.12
Proceeds of sale of condemned property (exclusive of Light-House Establishment)	9,609.88
Sale of land at the light-house station, Tompkinsville, N. Y., after deducting expenses of sale amounting to $619.85	45,894.70
Total	4,881,650.02

DIVISION OF PRINTING AND PUBLICATIONS.

COST OF PRINTING.

For the fiscal year ended June 30, 1909, the Department was allotted $500,000 for printing and binding, of which sum $125,000 was for the Bureau of the Census, which renders a separate accounting of its expenditures. Of the $375,000 available for the other offices, bureaus, and services of the Department, $374,939.91 was expended. This expenditure represents an increase of $31,977.55, or 9.32 per cent, over the fiscal year 1908.

For comparative purposes there is presented below a table giving the cost to the Department, the cost to Congress, and the total cost of all printing originating in the Department of Commerce and Labor for the past five fiscal years.

Year.	Charged to Department.[a]	Charged to Congress.[b]	Total cost.
1905	$209,286.08	$244,653.48	$453,939.56
1906	172,562.19	237,265.67	409,827.86
1907	332,185.05	26,585.66	358,770.71
1908	342,962.36	21,537.61	364,499.97
1909	374,939.91	25,504.08	400,443.99

[a] These charges represent the expenditures from the regular allotments to the Department for printing and binding.

[b] The decrease in the charges against Congress and the proportionate increase in the charges against the Department after 1906 is due to public resolution No. 13, approved March 30, 1906, which transferred from Congress to the Department charges for composition and electrotyping for publications printed under legislative direction.

The following table shows the number and cost of each class of printing and binding chargeable against the allotments of the Department for the past three years:

Class.	1907.		1908.		1909.	
	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.
Reports, documents, and pamphlets	2,740,821	$241,556.15	2,996,420	$257,631.88	4,261,069	$288,079.38
Blank forms	10,668,353	43,797.64	13,846,706	44,226.42	12,415,840	45,103.86
Circulars and decisions	368,708	3,846.19	261,620	3,818.86	409,450	3,865.83
Stationery, letter heads, etc	1,796,140	7,563.18	1,474,622	8,152.26	2,244,074	7,080.25
Blank books	27,204	28,744.68	25,178	23,856.56	22,502	26,462.43
Miscellaneous binding	3,324	4,755.48	2,855	4,762.26	2,570	4,268.21
Miscellaneous	....	1,921.78	....	514.12	....	79.95
Total	....	332,185.05	....	342,962.36	....	374,939.91

As indicated by these figures, there is no more accurate barometer of the growth and activities of the Department than its printing bills, for when a division or bureau is organized or discontinued, or when one is widened or contracted in authority and endeavor, the fact is immediately recorded by an increase or a decrease in the cost of printing. This would not necessarily be true but for the fact that the Department has since its organization jealously guarded its printing allotments, and has effected and practiced every reasonable economy to avoid excessive expenditures for printing. In carrying its supervision and scrutiny of these expenditures to its logical conclusion, the lowest ebb was reached in the fiscal year 1907, when careful editing and preparation of all manuscripts in that and prior years was rewarded by a low-water mark in the matter of cost of printing. Since 1907 these figures have gradually increased in proportion as the work and responsibility of the Department have broadened.

DISTRIBUTION OF PUBLICATIONS

Section 92 of the act approved January 12, 1895, entitled "An act to provide for the public printing and binding and the distribution of public documents," directs that, in order to prevent waste and duplication, the head of each department designate a competent person to distribute all publications issued by it. Because of a lack of floor space it has not been possible in the past for the Department to comply with this provision of law in its entirety, but by the removal last May of the Division of Printing and Publications to the Department Annex, at 462–464 Louisiana avenue, where ample storage and working spaces have been provided, it is possible to concentrate there the distribution of the Department's publications. This work is now being taken over by the Division, and every economy possible from the use of modern mailing machines and concentration of supervision will be effected. In the future the great majority of these publications will be wrapped for mailing instead of being placed in envelopes, as has been the practice hitherto. Wrapping will not only afford the same protection to the publications, but will result in a saving to the Department of from $3,000 to $4,000 a year.

SALE OF PUBLIC DOCUMENTS.

A number of the European governments have partially solved the problem of waste and extravagance in the printing of public documents by authorizing that they be sold at a price fixed in accordance with the actual cost of production, after the volume is ready for the press. Under this plan the circulation of a publication is confined to persons who have an actual need for it, and costs of printing are correspondingly reduced. In this country, however, sales of Government documents have been limited almost entirely to a few of a technical or scientific nature, but in each case where the experiment has been tried it seems to have been a success.

In the Department of Commerce and Labor a nominal price is placed upon the Tide Tables, Coast Pilots, and Coast Charts, issued by the Coast and Geodetic Survey, and upon Heads of Families: First Census of the United States, 1790, issued by the Bureau of the Census. The success that has attended the sale of these publications leads me to believe that the plan can be advantageously extended, and it is therefore recommended that the Secretary of Commerce and Labor be authorized in his discretion to sell any or all of the publications, other than annual administrative reports, issued by the several bureaus and offices of the Department.

BUILDING FOR THE DEPARTMENT.

The various bureaus and divisions of this Department are housed in ten buildings widely scattered over Washington. Under these conditions the rent involved, the time consumed in dispatching business, and the expense of maintaining separate messenger, labor, and char forces are some of the many objectionable features encountered in the administration of the affairs of the Department. In an effort to remove some of these disadvantages the Bureau of Labor, the Steamboat-Inspection Service, the Bureau of Navigation, the Light-House Board, the Division of Printing and Publications, and the Division of Supplies were removed last spring from a number of outlying buildings to what is known as the Department Annex, at 462–464 Louisiana avenue. This change naturally resulted, to some extent at least, in bettering conditions, and brought about a considerable saving in rent and reduction in administrative expenses.

In spite of this consolidation, however, the business of the Department is seriously embarrassed by the lack of a structure large enough to accommodate its varied services, and it is earnestly hoped that Congress will appropriate sufficient money for the erection of the building contemplated by the public buildings act of May 30, 1908.

The following table shows the location of the buildings now rented by the Department and the annual rentals paid therefor, no reference being made to the buildings occupied by the Bureau of Standards, the Coast and Geodetic Survey, and the Bureau of Fisheries, which are owned by the Government:

Location.	Occupied by—	Annual rental.
Willard Building, 513-515 14th street NW.	Secretary's Office, Bureau of Immigration and Naturalization, and Bureau of Corporations.	$11,880.00
Emery Building,[a] northwest corner 1st and B streets NW.	Bureau of the Census	21,000.00
Department Annex, 462-464 Louisiana avenue NW.	Light-House Board, Bureau of Navigation, Steamboat-Inspection Service, Bureau of Labor, Division of Printing and Publications, and Division of Supplies.	18,900.00
Adams Building, 1333-1335 F street NW. (in part).	Bureau of Statistics and Bureau of Manufactures	6,499.80
Munsey Building, E street between 13th and 14th streets NW. (in part).	Division of Naturalization	4,299.96
Basement, 920-922 E street NW	Light-House Board and Bureau of Statistics (storage of records and documents).	1,500.00
Kellogg Building, 1416 F street NW	Bureau of Immigration and Naturalization (Division of Chinese Records).	510.00
1137-1139 17th street NW	Department stable	1,500.00
Total		66,089.76

[a] To provide for the increased force required in connection with the Thirteenth Decennial Census steps are being taken to rent additional quarters for office and storage purposes. From present indications the rent for these additional quarters will amount, approximately, to $19,000 a year.

CONCLUSION.

For more detailed information I have to refer to the reports of the chiefs of bureaus.

Respectfully,

CHARLES NAGEL,
Secretary.

REPORTS

OF THE

DEPARTMENT OF COMMERCE AND LABOR

BUREAU OF CORPORATIONS
BUREAU OF LABOR
BUREAU OF IMMIGRATION AND NATURALIZATION
BUREAU OF THE CENSUS
BUREAU OF STATISTICS
BUREAU OF MANUFACTURES
BUREAU OF NAVIGATION
STEAMBOAT-INSPECTION SERVICE
LIGHT-HOUSE BOARD
BUREAU OF FISHERIES
COAST AND GEODETIC SURVEY
BUREAU OF STANDARDS

REPORT

OF THE

COMMISSIONER OF CORPORATIONS

REPORT

OF THE

COMMISSIONER OF CORPORATIONS.

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF CORPORATIONS,
Washington, January 31, 1910.

SIR: The deepest interest of this generation lies in the control of its dominant commercial forces. The issue is moral, involving deeply our American ideal of equal opportunity under the law. It is financial, and on its outcome depends the ultimate stability of our business system.

The corporation has become the accepted machinery for handling these forces. It is the artificial creature of the community. We have given it great powers and exemptions not permitted to the individual. We have made it effective. We have likewise made it capable of sinister misuse.

The corporation has concentrated enormous commercial power in the hands of a few men. At the same time it has lessened their personal responsibility for the proper use of that power. Sense of personal obligation to the community becomes submerged in vast corporate entities. The resulting abuses call for some restraint that shall take the place of the old personal obligation. Government supervision and publicity of corporations must be that substitute.

The issue is national; action by the Federal Government is imperative under its unquestioned power and duty to regulate interstate commerce. The Federal Government is the only adequate authority; one of the primary motives for its creation was for a national control of national business. Those directing our great corporations have deliberately nationalized them in size and scope; they can not now be heard to object to a centralized control which they themselves have made necessary. They have made their businesses truly governmental in their effect on the people. They can not now deny that the Government is concerned therein.

As guardian of the nation's welfare, the Government must see to it that the ordinary standards of right and fairness, which restrain our individual citizens, shall also be applied to our great modern businesses. It must make sure that the business machinery of the country shall be preserved from such misuse as would ultimately destroy it.

Conditions confront us which are now determining the country's future. A significant process of evolution is going on within our commercial organization. Two types of corporate managers are struggling for its control. The one (like most business men) bases his success upon increasing the efficiency of his organization; he acquires and holds his business by giving better service or lower prices. The public thus shares the benefits of his efficiency. He builds up our industrial strength.

The other succeeds, not by his own merit, but by crippling the efficiency of competitors; by railway rebates, by unfair competition, by commercial oppression, by public rights monopolized for private gain; not by giving better service, but by unfairly preventing others from giving any service. If this process continues, it will surrender the control of our commercial forces to the commercial pirate, to the injury of the nation and the unfair ruin of individuals.

Through the Bureau of Corporations, the Federal Government has deliberately taken the side of the fair user of our commercial forces. The instrument of the Bureau in its work has been "efficient publicity." It has relied on the moral sense of the American people, and its compelling force when concentrated intelligently on a business wrong. It has reported to the country, clearly and accurately, the operations of great industries. Business facts and their meaning have been set forth in such brief and plain shape as to be available through the press for the average citizen. It has thus evoked that intelligent public opinion that will protect honest business and condemn unfair practices.

It has been pioneer work on a vast subject, but the results have shown what can be done and how to do it. A great awakening has taken place in recent years as to our business methods. The Bureau does not assert that it has done anything more than aid in this process. But it does contend that the principles which it has used are the same ones which have brought about this advance and will continue it. The Bureau has proved by results that its methods are fit for broad application. Under the public condemnation thus made possible by facts plainly stated, great corporate abuses have been abandoned. A sweeping system of railroad rate discriminations has been voluntarily canceled by the railroads involved, and numerous forms of commercial oppression have diminished. Corporate managers themselves are frankly advocating more open accounting. One by one the great silent corporations are seeking public confidence by adopting a new policy of publicity.

The situation is thus ready for a complete system where (1) all important interstate-commerce corporations shall regularly make reports to a federal agency; where (2) that agency shall have the further right to verify and extend the facts presented; where (3) business transactions of public interest shall be made public, safeguarding at the same time all proper business secrets; where (4) there will be a permanent meeting ground for cooperation and adjustment between the Government and business interests; and (5) whereby those corporations that deal fairly and openly shall correspondingly acquire public confidence and support.

The exact form of this system is of little importance. The information must be had for the primary purposes of the Government and the citizen. Cooperation also must be had; publicity should as far as possible be voluntary. Corporate managers are recognizing the value of government publicity. To profit by this new spirit, the system of supervision must provide for cooperation. Prosecution is indeed necessary to destroy unfair methods, but it should be reserved as the last resort rather than used as the normal instrument.

The Bureau has proved the practical value of cooperation. In 1908 it pointed out certain defects in the methods of the New York and New Orleans cotton exchanges. Each exchange at once offered to confer with the Commissioner. As a result of such conference, the New Orleans exchange adopted, by a practically unanimous vote, the entire recommendations of the Bureau. This far-reaching improvement, affecting beneficially the various interests in that great staple, was secured simply by publicity and voluntary cooperation.

In short, our great interstate industries must come under permanent national supervision. The Bureau has proved that this can be secured in a rational and effective way. A system of practical publicity, with cooperation, will obtain that requisite for all wise measures, reliable information. It will involve no drastic action. It will, indeed, forestall such action. It will bring together the Government and the corporate manager in conference and cooperation, which alone can serve to adjust continuously the complex and changing relationship between our business forces and the public welfare. It will direct against business evils the overwhelming force of public opinion. It will be backed by, and make effective, penal law where prosecution is necessary. Such publicity will broadly prevent wrong beforehand instead of punishing isolated cases afterwards. It will remove unjust prejudice; it will improve the standing of our corporate securities, both at home and abroad; it will tend toward more open and more uniform corporate accounting. Finally, it will help to give our business machinery that foundation of fairness and openness and public confidence which it must have if it is to be a permanent factor in our national advance.

The total appropriations of the Bureau for the fiscal year ended June 30, 1909, were $247,720. The number of employees on that date was 111.

On December 14, 1908, at the request of the chairman of the Committee on Ways and Means of the House of Representatives, and under the instruction of the President, the Bureau furnished that committee, in connection with its pending hearings on the proposed tariff bill, with a statement as to the costs, prices, and profits connected with the production of standard rails for the years 1902 to 1906, inclusive. On December 17, 1908, the Bureau, in response to a similar request, furnished to the chairman of the said committee a statement as to the costs and profits in connection with the production of steel billets, both Bessemer and open hearth basic. The information in both of these statements was part of the data secured by the Bureau in the course of its investigation of the iron and steel industry, and, while brief in form, was unique in its accuracy and scope. The data as to rails covered companies producing more than 93 per cent of all the rails manufactured in the United States during the period covered. The information as to billets covered practically the entire Bessemer ingot production of the country, and more than 75 per cent of the open hearth production, for the period covered. The detailed facts upon which the statements were based were taken directly from the books of the companies producing the rails and the steel.

On February 25, 1909, the Bureau published Part I of its Repo
on the Tobacco Industry. This part dealt with the position of t

REPORT

OF THE

COMMISSIONER OF LABOR

REPORT

OF THE

COMMISSIONER OF LABOR.

Department of Commerce and Labor,
Bureau of Labor,
Washington, January 26, 1910.

Sir: I have the honor to submit herewith a detailed report of the work of this Bureau during the fiscal year ended June 30, 1909. The report is made in two parts. The first part relates to the laws under which the Bureau was established and under which it carries on its work, while the second part relates specifically to the work of the fiscal year ended June 30, 1909.

I. ESTABLISHMENT OF THE BUREAU.

The Bureau of Labor was originally established as a bureau of the Department of the Interior by an act approved June 27, 1884. This act provided that the "Commissioner shall collect information on the subject of labor, its relation to capital, the hours of labor, and the earnings of laboring men and women, and the means of promoting their material, social, intellectual, and moral prosperity." In obedience to this law, the Bureau was organized in January, 1885, and shortly thereafter, on February 4, 1885, the policy of the office was declared, in a letter addressed by the Commissioner of Labor to the honorable Secretary of the Interior, as follows:

> It should be remembered that a bureau of labor can not solve industrial or social problems, nor can it bring direct returns in a material way to the citizens of the country; but its work must be classed among educational efforts, and by judicious investigations and the fearless publication thereof, it may and should enable the people to comprehend more clearly and more fully many of the problems which now vex them.

Four years after its organization as a bureau of the Department of the Interior, during which time it had issued four annual reports covering the information collected and collated, as required by the organic act, the Congress established a Department of Labor, independent of any of the Executive Departments. The act establishing the Department of Labor was approved June 13, 1888, and provided—

> That there shall be at the seat of Government a Department of Labor, the general design and duties of which shall be to acquire and diffuse among the people of the United States useful information on subjects connected with labor, in the most general and comprehensive sense of that word, and especially upon its relation to capital, the hours of labor, the earnings of laboring men and women, and the means of promoting their material, social, intellectual, and moral prosperity.

The act defined the organization of the department and the duties of the commissioner, and further provided—

SEC. 7. That the Commissioner of Labor, in accordance with the general design and duties referred to in section one of this act, is specially charged to ascertain, at as early a date as possible, and whenever industrial changes shall make it essential, the cost of producing articles at the time dutiable in the United States, in leading countries where such articles are produced, by fully specified units of production, and under a classification showing the different elements of cost, or approximate cost, of such articles of production, including the wages paid in such industries per day, week, month, or year, or by the piece; and hours employed per day; and the profits of the manufacturers and producers of such articles; and the comparative cost of living, and the kind of living. "It shall be the duty of the commissioner also to ascertain and report as to the effect of the customs laws, and the effect thereon of the state of the currency, in the United States, on the agricultural industry, especially as to its effect on mortgage indebtedness of farmers;" and what articles are controlled by trusts, or other combinations of capital, business operations, or labor and what effect said trusts, or other combinations of capital, business operations, or labor have on production and prices. He shall also establish a system of reports by which, at intervals of not less than two years, he can report the general conditions so far as production is concerned, of the leading industries of the country. The Commissioner of Labor is also specially charged to investigate the causes of, and facts relating to, all controversies and disputes between employers and employees as they may occur, and which may tend to interfere with the welfare of the people of the different States, and report thereon to Congress. The Commissioner of Labor shall also obtain such information upon the various subjects committed to him as he may deem desirable from different foreign nations, and what, if any, convict-made goods are imported into this country, and if so, from whence.

SEC. 8. That the Commissioner of Labor shall annually make a report in writing to the President and Congress, of the information collected and collated by him, and containing such recommendations as he may deem calculated to promote the efficiency of the department. He is also authorized to make special reports on particular subjects whenever required to do so by the President or either House of Congress, or when he shall think the subject in his charge requires it. He shall, on or before the fifteenth day of December in each year, make a report in detail to Congress of all moneys expended under his direction during the preceding fiscal year.

SEC. 9. That all laws and parts of laws relating to the Bureau of Labor created under the act of Congress approved June twenty-seventh, eighteen hundred and eighty-four, so far as the same are applicable and not in conflict with this act, and only so far, are continued in full force and effect, and the Commissioner of Labor appointed under said act, approved June twenty-seventh, eighteen hundred and eighty-four, and all clerks and employees in the Bureau of Labor authorized to be appointed by said act or subsequent acts, shall continue in office and employment as if appointed under the provisions of this act, and until a Commissioner of Labor, other officer, clerks, and employees are appointed and qualified as herein required and provided; and the Bureau of Labor, as now organized and existing, shall continue its work as the Department of Labor until the Department of Labor shall be organized in accordance with this act; and the library, records, and all property now in use by the said Bureau of Labor are hereby transferred to the custody of the Department of Labor hereby created, and on the organization of the Department of Labor on the basis of this act the functions of the Bureau of Labor shall cease.

Under this act the Department of Labor issued 14 annual reports of the information collected and collated in accordance with the organic act, 9 special reports, and a number of miscellaneous reports, many of which were made in compliance with the special direction of Congress. Since November, 1895, the Bureau has also published a bimonthly bulletin, in accordance with a law approved March 2 of the same year, as follows:

The Commissioner of Labor is hereby authorized to prepare and publish a bulletin of the Department of Labor, as to the condition of labor in this and other countries, condensations of State and foreign labor reports, facts as to conditions of employment, and such other facts as may be deemed of value to the industrial interests of the country, and there shall be printed one edition of not exceeding ten thousand copies of each issue of said bulletin for distribution by the Department of Labor.

In accordance with the plan adopted the Bulletin has at least four regular departments of information, as follows:

First. The results of original investigations conducted by the Bureau or its agents and experts.

Second. A digest of state labor reports.

Third. A digest of foreign labor and statistical documents.

Fourth. The reproduction immediately after their passage of new laws that affect the interests of the working people, whether enacted by Congress or by state legislatures; and accompanying this there is the reproduction of the decisions of courts interpreting labor laws or passing upon any subject which involves the relations of employer and employee.

Under the act approved February 14, 1903, establishing a new executive department, to be known as the Department of Commerce and Labor, it was provided that, among other offices, the existing Department of Labor be placed under the jurisdiction and supervision of the new Department, this provision to take effect and be in force July 1, 1903. In accordance with the provisions of this act, the former Department of Labor, on July 1, 1903, became a bureau of the Department of Commerce and Labor. Inasmuch as no provision was made for any change in its general design and duties, its work has been carried on along practically the same lines as formerly.

II. OPERATIONS DURING THE FISCAL YEAR 1909.

PUBLICATIONS.

During the fiscal year ended June 30, 1909, the Bureau prepared and transmitted its Twenty-third Annual Report—that for 1908. This report is entitled Workmen's Insurance and Benefit Funds in the United States, and covers in its scope the various plans of workmen's insurance, by which is meant the insurance of workmen, as a distinct class, against sickness, accident, death, old age, or other adversity.

These schemes of insurance, while under different forms and systems of management, and bearing various names—as fund, association, society, department, etc.—are all designed for the benefit of wage-workers and persons on small salaries, and their purpose usually is to furnish a sum sufficient to compensate, in part at least, for the loss of wages occasioned by disability and to pay funeral expenses in case of death. These funds, associations, etc., are divisible into three general groups—those maintained by or as adjuncts to labor organizations; those centering in a common place of employment and generally limiting their membership to the employees of the particular establishment; and those conducted by groups of workingmen for mutual benefit without regard either to common employment or to affiliation with any particular union. The report includes 88 national and international labor organization funds, 530 local labor organization funds, 50 railroad funds, 461 local establishment funds, 18 hospital funds, etc.

During the year the Bureau was also engaged in the preparation of its Twenty-fourth Annual Report—that for 1909—which will cover the various forms of workmen's insurance in force in foreign countries. This report will probably be transmitted early in 1910.

In compliance with Senate resolution of May 28, 1908, calling for an "investigation into all the telegraph and telephone companies engaged in the conduct of an interstate business as to the methods used in handling the public's business, the wages paid telegraphers, telephone operators, and other employees of such companies, and the working conditions of the employees thereof, together with a statement of the receipts and expenditures of such companies for a period of five years," the Bureau of Labor transmitted, under date of February 13, 1909, a report showing the results of an investigation into the Western Union and the Postal Telegraph-Cable companies. This report was the result of an exhaustive investigation covering all sections of the country, and was based on data secured from the companies, from employees, and from extended personal investigation. The report deals with the methods of handling business and the volume of business, the rates charged for messages of all kinds, the physical working conditions surrounding employees, the hours of labor and methods of work, the wages and earnings of employees, and the receipts and expenditures of the companies.

The investigation in regard to telephone companies called for by the foregoing resolution has been completed and the material will be tabulated and put in form for a report at as early a date as possible. The investigation has covered all of the telephone companies of any considerable size in all sections of the country. The report will cover so far as conditions will permit lines similar to those followed in the report on telegraph companies, as indicated above.

During the year the field work of the woman and child labor investigation was entirely completed and a large part of the work of tabulating and summarizing the great mass of data collected has been done. A great deal of work still remains, however, in summarizing and digesting this material and preparing the written reports based upon it. The general study of the employment of women and children has been made in four great industries—cotton textiles, silk, men's clothing, and glass. In these industries all of the various questions involved in the employment of women and children have been studied. All of the great centers of the industries have been covered and a sufficiently large body of data has been collected to make the reports thoroughly representative. In addition to this, a number of special studies have been made into some of the most significant aspects of woman and child labor, and these studies will form the subjects of special reports. It is expected that the first of these reports will be ready early in the year 1910 and that all of the reports will be completed and transmitted to Congress during the fiscal year.

The Bulletin of the Bureau was issued regularly every other month, and has contained, in addition to one or more special articles in each number, digests of recent reports of state bureaus of labor statistics, digests of recent foreign official statistical publications, decisions of courts affecting labor, and laws of various States relating to labor. The special articles included in the Bulletin for the past year are as follows:

Bulletin 77 contained "Wages and hours of labor in manufacturing industries, 1890 to 1907," and "Retail prices of food, 1890 to 1907." These two articles are in continuation of a regular series of Bulletin articles, begun in Bulletin 59, for July, 1905, and published annually since that time, supplementing and continuing, respectively, the Nineteenth Annual Report, relating to wages and hours of labor, 1890 to 1903, and that portion of the Eighteenth Annual Report which relates to retail prices of food, 1890 to 1903.

Data relative to wages and hours of labor in 1907 were secured for 333 occupations, and a total of 4,169 establishments engaged in 41 industries. The compilation of retail prices of food included 6,087 schedules or statements of prices from 1,014 firms doing business in the principal industrial localities in 39 States, including the District of Columbia.

Bulletin 78 contained "Industrial accidents," and "Mexican labor in the United States." The first article is a study of statistics from official sources and from insurance experience showing the accident liability to which American workmen are subject, and discusses accidents for important occupations in 5 general groups of industry, viz, factories and workshops, electrical industries, mines and quarries, transportation by rail, and transportation by water. The second article is a study of the character and extent of Mexican labor in the United States. The article treats of the method of distributing these laborers, their work on railways, on farms, in mines, and in lumbering and wood working, their economic and social condition, and the effect of their immigration both in this country and in Mexico.

Bulletin 79 contained "Mortality from consumption in dusty trades," and "Charity relief and wage earnings." The first article is a discussion of occupations in which, because of dust, employment is injurious to health and leads especially to the development of consumption. Forty-two occupations are considered, grouped according as they are subject to exposure to metallic dust, mineral dust, vegetable fiber dust, or animal and mixed fiber dust. The statistics are from official sources and from insurance mortality experience. The second article is a study of the charity relief given through the Associated Charities of Washington, D. C., and covers the records of 1,183 families in 1905. Consideration is given to the size of the families, the number in which the husband or the wife was dead or had deserted the family, occupations and wages, nature of relief, delinquencies, and causes of distress.

Bulletin 80 contained "Woman and child wage-earners in Great Britain." The article is a study of the condition of these classes of workers as shown by statistics, and a consideration of the social and economic effects of factory legislation, especially as regards hours of work, wages, distribution of employment, general welfare of workers, and influence upon industry. Among the subjects treated are the half-time system, employment of children outside of factories and workshops, street trading, outwork, sweating, and the minimum wage.

Bulletin 81 contained "Wholesale prices, 1890 to 1908." This article brings down to the end of 1908 the results of the investigation of this subject, the publication of which was begun in the Bulletin of March, 1902, and continued in the corresponding Bulletin of each subsequent year. The article covers 258 series of quotations, representing all classes of staple commodities.

Bulletin 82 contained "Mortality from consumption in occupations exposing to municipal and general organic dust." This article is a discussion of 4 occupations with exposure to municipal or street dust and 15 with exposure to general organic dust, and is supplementary to the article on "Mortality from consumption in dusty trades" published in Bulletin 79.

In addition to the preparation and compilation of the report and Bulletins described, which are the publications of the last fiscal year, the force of the Bureau has been engaged in the collection and preparation of data for a number of future reports and Bulletins.

AWARDS FOR INJURIES TO GOVERNMENT EMPLOYEES.

By your direction, the Bureau is charged with the practical administration of the act of Congress approved May 30, 1908, granting compensation for injuries to artisans and laborers employed on certain classes of work by the Government of the United States. Prior to the taking effect of the act, on August 1, 1908, regulations formulated with the view of simplifying as much as possible the procedure in the submission of claims and at the same time effectually safeguarding the interests of the Government were issued to the several executive departments and independent branches of the service. Blanks for use in making reports and filing claims were also prepared and distributed.

To provide full data in regard to accidents to all classes of employees, should any question arise at any time in the future as to the extension of the principle of the act to other employees of the United States, the regulations make provision for reports of injuries to all classes of government employees, regardless of the right to compensation under the act, when the injury occurs in the course of employment and is of such a nature as to prevent the employee from performing work for one day or longer. Information as to the duration of the disability is secured by a report of the time of return to work in all cases.

Reports of 4,829 injuries to government employees occurring during the eleven months intervening between August 1, 1908, and the end of the fiscal year were received. Of these, 229 terminated fatally. Claims were filed in 88 cases of death, in 52 of which the payment of compensation was approved. In a majority of the 36 cases of fatal injury in which no right to compensation was established it was found either that the deceased employee was not engaged in any of the branches of the service enumerated in the act or that the claimants had failed to file their affidavit within ninety days after the employee's death, as required by the statute.

The number of claims for compensation on account of nonfatal injuries was 1,661. In 1,574 instances a right to compensation was found to have been established and payment was approved.

The total amount of compensation payable to the families of deceased employees during the eleven months was $49,928.40, making the average cost to the Government of each case of fatal injury $960.16. With regard to nonfatal injuries, the total payments amounted to $183,411.34, or an average of $116.53 for each case.

Respectfully,

CHAS. P. NEILL,
Commissioner.

To Hon. CHARLES NAGEL,
Secretary of Commerce and Labor.

REPORT

OF THE

COMMISSIONER-GENERAL OF IMMIGRATION

dust and 15 with exposure to general organic dust, and is supplementary to the article on "Mortality from consumption in dusty trades" published in Bulletin 79.

In addition to the preparation and compilation of the report and Bulletins described, which are the publications of the last fiscal year, the force of the Bureau has been engaged in the collection and preparation of data for a number of future reports and Bulletins.

AWARDS FOR INJURIES TO GOVERNMENT EMPLOYEES.

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Chas. P. Neill,
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To Hon. Charles Nagel,
Secretary of Commerce and Labor.

REPORT

OF THE

COMMISSIONER-GENERAL OF IMMIGRATION

REPORT

OF THE

COMMISSIONER-GENERAL OF IMMIGRATION.

Department of Commerce and Labor,
Bureau of Immigration and Naturalization,
Washington, July 1, 1909.

Sir: As the work of the Bureau has grown and the scope of its duties extended from year to year, this annual report to the Secretary of its operations and accomplishments has increased in importance and in volume until recently it has become so bulky that its usefulness has perhaps been impaired by its very size. In an effort to obviate this tendency both its text and its tables have heretofore been minutely segregated, so that, with the aid of a comprehensive index, any particular one of its various subjects might be readily located. It is highly desirable, however, that, if possible, its volume shall be reduced, although somewhat at the expense of comprehensibility and perspicuity. In presenting this report for the fiscal year 1909, therefore, brevity and conciseness are sought just so far as an intelligible review of the extensive operations of the year will permit.

The Bureau's work now falls into three principal classes: First, that conducted by the Bureau proper and the Immigration Service at large—the enforcement of the immigration and Chinese-exclusion laws; second, that conducted by the Division of Naturalization, established by the act of June 29, 1906; and, third, that conducted by the Division of Information, established by section 40 of the immigration act of February 20, 1907. The second and third branches, respectively, are covered by the reports of the chiefs of the two divisions, Mr. Richard K. Campbell and Mr. Terence V. Powderly, which are published as appendices to this report (pp. 283 and 309). It has been customary heretofore to give separate consideration to the enforcement of the immigration and Chinese-exclusion laws, respectively; but the Bureau's efforts for a number of years have been directed toward a complete consolidation of those branches in the actual enforcement of the two sets of statutes, and it has consistently urged the consolidation of the laws. There seems, therefore, to be every reason for considering the two subjects as substantially one in the annual summary of the work. This year, accordingly, the tables regarding Chinese are so arranged as to form a part of the set of statistical data furnished in the first part of the report, and such tables are discussed in the text in the order of their occurrence.

The Bureau has now had two full years' experience in the enforcement of the immigration act of February 20, 1907. That act is a codification and reenactment, with certain important modifications, of all laws theretofore passed on the subject of immigration. The Chinese-exclusion laws have undergone no change of importance in the past sixteen years. Each year's added experience in endeavors to enforce those laws but emphasizes the difficulty, and in many respects the impossibility, of obtaining an administration that is even fairly efficacious and at the same time satisfactory to all concerned. They need to be relieved of many unnecessarily harsh provisions and also of provisions shown by experience to be useless or to produce absurd consequences. To these points attention has been directed in the reports of the Bureau for the last six years. The last half of the past fiscal year, moreover, has witnessed a return to the conditions with respect to the immigration of aliens in general that obtained in the years preceding the business depression of 1907–8; and there has been a marked increase in the regular immigration of Chinese, and the efforts of the promoters of the irregular entry of people of that race seem to have been redoubled. There is a general and growing public interest in the many and intricate questions that arise from what is usually termed the "immigration problem." The attention of Congress is to be directed toward the matter again when the Immigration Commission makes its report to the forthcoming session.

Altogether, therefore, this is deemed an appropriate opportunity to comment extensively upon both the immigration and the Chinese-exclusion laws, and to call attention to each particular in which they fail to accomplish the objects believed to have been in the minds of those who enacted them. Accordingly, as the statistics for the year are furnished and commented upon and the work of the year described, attention is directed to the strong and the weak points of the laws as viewed administratively. To make this feature complete there is furnished as Appendix I to this report (p. 249) a draft of a bill, with full descriptive notes, to which reference is made throughout the text. In this draft no suggestion is offered of extending the scope of the law by any radical departure from already established and defined lines. It is in the main a rewriting of the existing law and a merging of such of the provisions of the Chinese-exclusion statutes as are useful into the more modern and administratively advantageous provisions of the statutes dealing with immigration in general; a strengthening, by appropriate change of language, of the provisions found by administrative experience or judicial decision to be inadequate to accomplish the ready admission of those eligible and the complete exclusion of those ineligible to enter the country, and the prompt and effective expulsion of those who, despite a rigid administration, enter. An effort has also been made to arrange the provisions of this suggestive codification of the statutes in logical sequence and to express them in language so simple and clear as to be open to no misconstruction. So far as possible, also, maximum and minimum penalties of adequate proportion are suggested for adoption in the various penal clauses of the law. In weaving into the proposed measure the various piecemeal and conflicting statutes regarding Chinese aliens and bringing them into agreement with the general plan for the control of the immigration of foreigners that has, since the enactment of those statutes, been gradually evolved and perfected, and has proven so much more successful in operation than the so-called "exclusion laws," there have been eliminated the many unduly harsh and worse than useless items that were injected into the original measures at a time when the feeling against Chinese was perhaps unduly bitter, but each item that is useful, because calculated to effect the real object of the legislation—the exclusion of "Chinese laborers" as that term has become defined affirmatively and negatively by said laws—is saved and strengthened. This draft, therefore, may be said to be principally a statement in the concrete of the Bureau's experience with law now existent more or less completely for some years. It is not intended and should not be regarded as a declaration that the Bureau is satisfied that the law, even if made at every point effective of its present intent, would be all-sufficient to control immigration. On the contrary, the Bureau believes that the time has come for the adoption of some measures more restrictive than any so far enacted. That such is the case has been demonstrated by the evils that have grown out of immigration, particularly in the large cities of the East and Middle West, which evils have been accentuated during the past few years of industrial depression. The point at which, perhaps, the law is especially inadequate is in the class of excluded aliens termed "persons likely to become a public charge." This standard is not high enough. The alien who becomes a burden on the taxpayers is ultimately undesirable principally for financial reasons. The alien who is barely able, perhaps even with the assistance of private charity, to eke out an existence is continuously undesirable for economic reasons. The presence of such persons in the community tends always to lower the standard of living, of work, and of wages; must have, in an economic sense, a degrading effect. Each community can in time elevate a few such persons to its own level, but its capacity in this respect is limited, and many of our communities have been degraded, and many others will be unless some means are found of preventing the immigration of the alien who is barely able to maintain himself.

Numerous suggestions for a further restriction of immigration have heretofore been offered by those who have studied the problem. Many are now advocating a "literacy test," or an increased head tax. Doubtless there is considerable merit in each proposal; but do either or even both of them constitute a test sufficiently high or exacting to reach the class above mentioned? If no test can be devised which will reach the said class and thereby properly restrict immigration, and if either a literacy test or an increased head tax or the two combined will partly effect that object, the adoption of such a measure obviously would be advisable. There is a fact with respect to each of these proposals, however, which should not be overlooked in estimating their value: First, it can not be stated as a hard and fast rule that the desirability of an alien is always to be measured by his ability to read and write, nor can it even be said that the class above described is composed wholly of the illiterate; second, anything less than a large increase in the head tax will hardly operate to materially reduce immigration, for the profits of the steerage-passenger business are undoubtedly sufficient to enable transportation lines to assume, if necessary, a considerable part of such an increase and keep the cost of passage at practically its present rate, or the money lenders could readily increase the amount loaned prospective passengers under the present extensive credit system and incidently reap an increased profit.

The Bureau desires, therefore, to suggest that careful consideration be given the question of inserting in the law an additional class of aliens to be excluded through administrative discretion of a broader scope than that which can be exercised with respect to "persons likely to become a public charge," said class to be described in some such apt term as "persons economically undesirable."

Another proposal for the further restriction of immigration is worthy of careful thought, viz, that all male aliens between the ages of 16 and 50 should be required to stand a physical examination at the ports of this country equal to that observed, under our military regulations, with respect to recruits for the army. This is based upon the idea that those admitted to a share in our institutions and prosperity ought to be the peers in physique of those who defend such institutions—ought to be able themselves to defend them if occasion should require.

The Bureau is convinced that the proper control of immigration requires the adoption of a measure of the following character. Formerly the law allowed the expulsion within the period of one year after entry of unlawfully entered aliens and of those who had become charges upon the public, and the period is now three. In the face of statistics showing to what a very large extent aliens become dependents in this country, why should any limitation be placed upon the Government's inherent right to remove them to the country of which they are citizens or subjects, and by which as a matter of common justice the burden of their support should be borne? Any alien (except members of certain races) of correct inclinations may, under our naturalization laws, become a citizen of the United States after five years' residence in this country. Why should the undesirable alien who does not care to avail himself of that high privilege be told that if he will manage to avoid the immigration officials for three years only he may remain here without clothing himself with citizenship, no matter how undesirable he may continue to be or how extensive a burden he may become upon the taxpayers of the country? The Government should not surrender its right to expel aliens, but should, in the Bureau's opinion, make the dividing line the question whether the person is or is not still an alien. The importance of this matter can hardly be exaggerated. When the penal, reformatory, and charitable institutions of the country were canvassed in 1908, a number of interesting and significant facts were disclosed. On this subject the following is quoted from last year's reports (pp. 192 and 193):

> The last investigation of this kind was made in 1904. (See pp. 48–76 of annual report for that year.) In a general way the method of presentation adopted in reporting the results of that investigation are now followed, but some changes are made in the interest of clearness and comprehensibility. Thus, Table G, in particular, is much more comprehensive than any table furnished in 1904, covering, as it does, the United States proper, Alaska, Hawaii, and Porto Rico, and giving an account of the entire number of inmates found in public institutions, segregating the institutions into penal, insane, and charitable, and the inmates into aliens, naturalized citizens, and native-born citizens, and showing a total of 60,501, 73,593, and 476,383 of the said classes, respectively, and a grand total of 610,477. The total of each class of inmates under each class of institution furnishes, by comparison, an interesting subject for study and speculation. Of the 149,897 inmates of penal institutions, 126,562 are native born and the remainder, 23,335 (15,323 aliens and 8,012 naturalized citizens),

are foreign born; of the 172,185 inmates of insane asylums, 121,451 are native born and the remaining 50,734 (25,606 aliens and 25,128 naturalized citizens) are foreign born; while of the 288,395 inmates of charitable institutions (other than insane), 228,370 are native born and the remaining 60,025 (19,572 aliens and 40,453 naturalized citizens) are foreign born.

* * * * * * *

A few comparisons with the figures for 1904 are not deemed inappropriate. The total number of aliens found in 1904 to be inmates of institutions of this character was 44,985, against 60,501 found by the recent investigation, an increase of 15,516, or about 34 per cent. As to class of institution, increases are shown as follows: Penal, from 9,825 to 15,323; insane, from 19,764 to 25,606; and charitable, from 15,396 to 19,572; while with regard to character of the offense for which incarcerated in penal institutions an increase is shown from 4,124 to 8,197 in grave offenses, and from 5,701 to 7,126 in minor offenses. With respect to the different sections of the country increases are shown as follows: North Atlantic States, from 27,301 to 37,249; North Central States, from 9,082 to 12,205; South Central States, from 1,282 to 1,766; Western States, from 5,094 to 7,051; Hawaii, from 282 to 370; while the South Atlantic States show a reduction from 1,909 to 1,781 and Porto Rico from 35 to 19. Alaska, taken this year for the first time, shows a total of 60.

An ideal administration of the immigration law would prevent the entry of undesirable aliens to such an extent that the provisions contemplating expulsion would seldom need to be invoked. Such standard is, like all ideals, difficult of attainment; but it can, with the exercise of a more thorough supervision over the entry of aliens, a more complete guarding of the land borders to prevent smuggling, and the expenditure of more time and money in the investigation of all doubtful cases, be more nearly approximated than at present, provided the foregoing suggestions are adopted and the law is strengthened, rounded out, and completed in such a manner as to leave no room for doubt as to its meaning. The Bureau believes in a strict administration, not only because it is best calculated to protect the country against undesirable immigration, but because of its humanitarian advantages. A rigid enforcement of the law, in the final analysis, is the most humane. If it becomes thoroughly understood by all that only certain well-defined desirable classes will be permitted to land on our shores, other classes will hesitate to apply and the transportation companies will refuse to bring them. On this subject particular attention is directed to the report of the commissioner at New York (p. 230).

STATISTICAL TABLES.

For a number of years, as the law has been broadened and the facilities for collecting useful and interesting data have been increased and improved, the tables giving immigration statistics of various kinds or in various ways have been amended and extended, new tables or additions to old ones being inserted at the most convenient points. It is believed that there has now been evolved a fairly comprehensive and satisfactory method of collecting and presenting these data, and that it will be useful for the present and especially for the future to rearrange and renumber and in some instances consolidate the tables, in the interest of a logical presentation of the figures and a consecutive numbering of the tables—a plan which can be continued in succeeding reports with convenience and clearness. While such rearrangement renders comparisons between this and preceding reports somewhat awkward, that result is obviated so far as possible by inserting in the text the number by which a table has heretofore been identified.

As a preliminary to a discussion of each table that calls for any comment in the text, it is interesting to note some of the larger and more important facts disclosed.

Immigration is rapidly reassuming what for a number of years has been its average proportions, from which there was in the fiscal year 1908 and the first half of the past fiscal year a decided but temporary departure. That its present trend is upward is manifested by the fact that the larger part of the gain shown by a comparison of immigration by months has occurred in the last few months of the past year. The total immigration for the year has been 751,786, or 31,084 less than the total (782,870) for the fiscal year 1908, and 533,563 less than the total for the year 1907 (1,285,349), the banner year in immigration. But the months of January, February, March, April, May, and June, 1909, show increases over the same months of 1908 of 16,648, 43,773, 80,521, 75,480, 71,522, and 53,523, respectively—a total increase for the two corresponding half-year periods in the entry of alien immigrants of 341,467. One principal cause has operated to bring about this sudden return to a heavy immigration of foreigners. Undoubtedly the demand for labor has improved somewhat during the past year, and the impression has spread throughout Europe that industrial conditions are rapidly regaining the extreme prosperity that marked the years immediately preceding the depression of 1907; and, trading upon this improvement and magnifying it beyond all reasonable limits, those interested in the steerage passenger carrying business have made it a means of increasing their revenues. (See also pp. 210–211.)

It will be observed that the past year has witnessed an influx of 751,786 aliens of the immigrant class and 192,449 of the nonimmigrant class, a total of 944,235; and that 225,802 of the emigrant and 174,590 of the nonemigrant class—a total of 400,392—have departed from the country. In the fiscal year 1908, 782,870 immigrant and 141,825 nonimmigrant aliens—a total of 924,695—entered the United States; while 395,073 emigrant and 319,755 nonemigrant—a total of 714,828—departed. Thus it will be seen that, while the immigration for 1909 exceeded that of the previous year by 19,540 (31,084 less immigrant and 50,624 more nonimmigrant), the emigration for 1908 exceeded that for 1909 by 314,436 (169,271 more emigrant and 145,165 more nonemigrant aliens); the net result, therefore—i. e., the actual increase in the alien population of the country—is larger for the past year by 333,976 aliens.

Table I (new) is a brief summary of the year's immigration work, by ports, compared with a similar summary for the fiscal year 1908. It covers the arrival but not the departure of citizens, as well as both the arrival and the departure of aliens—immigrant and nonimmigrant, emigrant and nonemigrant—also shows the number of aliens refused admission and the number expelled after entering the country. Comparison between the two years can readily be drawn by columns. It will be noted that 491 less aliens have been debarred than in 1908, but that the ratio rejections bear to admissions is about the same, viz, 1.18 per cent for 1908 and 1.09 per cent for 1909; also that the number expelled is practically the same as in 1908.

Tables II to IV deal with the net increase or decrease of the population of the United States occasioned by the arrival and departure of aliens, comparing the fiscal years 1908 and 1909 by months, by countries, and by races.

Thus is given in detail information furnished briefly for the first time in the report for 1908 (Table I A), the detail being worked out in such a way as to furnish the most important items concerning both immigration and emigration that have heretofore been presented with regard to the former only. It will be noted that during the past fiscal year 751,786 immigrant aliens and 192,449 nonimmigrant aliens, making a total of 944,235 were admitted to this country; and that during the same period 225,802 emigrant aliens and 174,590 nonemigrant aliens, making a total of 400,392, departed from the United States. Deducting the latter total from the former it will be found that the net increase in population by immigration has been 543,843. Even from this number, however, to arrive at an absolutely accurate conclusion, it would be necessary to deduct the number of naturalized citizens of the United States who have left this country for permanent residence abroad, and it is impossible to obtain from existing records figures covering such naturalized citizens. In making the classification, the following rule is observed: Arriving aliens whose permanent domicile has been outside the United States who intend to reside permanently in the United States are classed as immigrant aliens; departing aliens whose permanent residence has been in the United States who intend to reside permanently abroad are classed as emigrant aliens; all alien residents of the United States making a temporary trip abroad and all aliens residing abroad making a temporary trip to the United States are classed as nonimmigrant aliens on the inward journey and nonemigrant on the outward. It will be observed, also, that while there is but a very slight difference between the total number of aliens admitted in the years 1908 and 1909, the net increase in population shown for the latter is more than twice that shown for the former year, due principally to the fact that emigration has been so much lighter.

Table V (new) supplies figures from which the net result of immigration and emigration can be determined for any particular State, showing the number of immigrant and nonimmigrant aliens, respectively, admitted with a stated intention of settling in each of the different States, and of emigrant and nonemigrant aliens, respectively, asserting at the time of departure that their last permanent residence has been in each of the different States.

Table VI shows the occupation of aliens entering and leaving the country during the fiscal year, segregated into professional, skilled, and miscellaneous. Of common, unskilled laborers, 221,145 (174,800 immigrant and 46,345 nonimmigrant) entered, and 183,545 (118,936 emigrant and 64,609 nonemigrant) departed, as against arrivals of members of the skilled trades aggregating 114,910 (87,160 immigrant and 27,750 nonimmigrant) and departures of the same aggregating 48,084 (21,919 emigrant and 26,165 nonemigrant). These figures seem to bear out the general impression that the so-called "bird-of-passage" element of our immigration is constituted largely of the unskilled.

The second series of detailed tables presented, numbered VII to XII A, covers immigrant aliens admitted and emigrant aliens departed, and the various tables are arranged in such manner as to furnish with respect to each, in consecutive order, the items of interest which it has heretofore been customary to give with regard to immigrant aliens. These are the most important tables, as they deal with the true immigrant and the true emigrant, the economically most interesting of the several classes under which the statistics are kept. Several of the tables deserve special comment.

Table VII corresponds with Table III of prior reports, in so far as that table related to admission, and furnishes data regarding sex, age, illiteracy, financial condition, how passage has been paid, and whether coming to join relative or friend. Table VII A gives data regarding sex, age, and how long in the United States, with respect to emigrant aliens leaving the country. In this respect it is the counterpart of Table VII. These are in several ways the most comprehensive and interesting of the tables. Some of the more prominent items should be emphasized here.

Of the total number of immigrant aliens admitted (751,786), 624,876 were between the ages of 14 and 44, while 88,393 were under 14, and 38,517 were 45 or over. Relatively these figures are about the same as for the preceding year.

Of those admitted, 191,049 (141,871 males and 49,178 females) could neither read nor write, and 2,431 (1,332 males and 1,099 females) could read but not write. These figures do not include any aliens less than 14 years of age. In the year 1908, 172,293 of those admitted could neither read nor write, and 2,310 could read but not write, a total of 174,603 illiterates, against a total of 193,480 for the past year—an increase of 18,877. This may be more graphically presented, however, in ratio: Of those admitted in 1908 over 14 years of age (670,722), the illiterates amounted to 174,603, or 26 per cent; of those admitted in the past year over 14 years of age (663,393), the illiterates amount to 193,480, or 29 per cent; in other words, the ratio of illiteracy has returned almost to the point shown for the year 1907 (30 per cent), and has passed that for the year 1906 (28 per cent), on the basis of an immigration much smaller than that of either of those years.

The total amount of money brought into the country by arriving aliens was $17,331,828, or an average of about $23 per person. This includes only amounts which have been shown by arriving aliens to the inspection officers, and it is quite possible that a considerable part of that carried was not shown; moreover, there is no way of determining what portion of it consisted of money sent to relatives or friends by aliens already located in this country. Of those admitted, 482,859 were able to show amounts of less than $50 each, whereas 79,122 showed $50 or over each; so that of those able to give ocular demonstration of the possession of money, namely, 561,981, about 86 per cent had in their possession less than $50, as compared with about 84 per cent for the year 1908.

Of the aliens entering, 523,718 claimed to have paid their own passage, while 220,352 admitted that their passage had been paid by a relative or relatives, and 7,716 admitted that their passage had been paid by some person other than a relative. In other words, even according to the not altogether reliable information on this subject furnished by applicants, it appears that almost one-third of the total number admitted were assisted to reach this country.

With respect to emigrant aliens, Table VII A shows that a total of 225,802 (159,009 males and 37,085 females, and 29,708 whose sex is not known, as they left across the Canadian border) have departed during the past year. With respect to 196,094 of these, it has been possible to keep a record of the age and of the period the aliens had lived in the United States. Thus it is shown that 9,804 were less than 14, 165,778 were from 14 to 44, and 20,512 were 45 years of age or over; 160,154 had resided in the United States less than five years, 26,967 from five to ten years, 4,027 from ten to fifteen years, 2,666 fifteen to twenty years, and 2,280 over twenty years.

Tables VIII, IX, X, and XI correspond with Tables V, VII, VIII, and IX, respectively, of preceding reports regarding immigrant aliens admitted, and are accompanied by Tables VIII A, IX A, X A, and XI A, respectively, which are their counterparts with respect to emigrant aliens departed.

Tables XII and XII A are designed to furnish statistics regarding immigrant aliens admitted and emigrant aliens departed, by race and sex, by the fiscal year, by six-month periods, and by the calendar year, as such an arrangement of the figures has been found useful.

Tables XIII to XIV A, inclusive, constitute a series dealing with nonimmigrant aliens admitted and nonemigrant aliens departed, and furnish in several different ways information of interest concerning such aliens. In general they correspond with Table XIV of previous reports, but contain information of a more detailed character.

Table XV furnishes a means of comparing immigration for the fiscal years 1899 to 1909, inclusive, segregated by races; while Table XVI (corresponding with Table XII in preceding reports) gives the immigration totals from the year 1820 to the year 1909, inclusive. In connection with Tables XV and XVI, attention is directed to the two charts facing page 248, which present similar information in graphic form.

Chart 1 shows the wave of immigration into the United States from the various countries since 1820. It is interesting to note the successive periodical increases, receding less each time, coincident with the periods of financial depression, only to reach a greater height with the next ascending wave, passing a million and a quarter, the highest point in history, during the year 1907, and again dropping back last year. Thus, the three periods of depression following 1857, 1873, and 1893 stand out prominently, and the recent financial and commercial depression caused the wave line to drop to a marked degree. This periodical rise and fall well represents the relative prosperity of the country, while the gradual average increase from decade to decade may be taken as a fairly accurate index of the country's development and growth and its capacity to employ larger numbers of alien laborers.

Chart 2 shows the yearly immigration from the principal countries from 1820 to the present year. The proportions from each country for the entire period are as follows: United Kingdom, 29 per cent; Germany, 20 per cent; Scandinavia (Denmark, Norway, and Sweden), 7 per cent; Italy, 11 per cent; Austria-Hungary, 11 per cent; Russia, 8 per cent; France, 2 per cent; Switzerland, 1 per cent; countries not specified, 10 per cent. Until recent times immigration was derived almost entirely from the Teutonic and Celtic countries of northern and western Europe, principally Germany and the United Kingdom. Although no immigration statistics were collected, it is known that previous to 1820 the people who came to this country were also from northern and western Europe. Thus, the great mass of our population is of Teutonic and Celtic origin, with a considerably greater proportion of the former. However, a change in the source of immigration, it will be seen, commenced about 1882, and has assumed enormous proportions during the past ten years, until now 67 per cent of our immigration comes from the Slavic and Iberic countries of southern and eastern Europe, 507,211 having arrived from those countries during the past year.

The series constituted by Tables XVII, XVII A, XVII B, and XVIII deals with aliens refused admission and returned from the ports, and aliens apprehended within the country and deported on departmental warrants. They need to be discussed in some detail.

From Table XVII (corresponding in part with Table III of previous reports) it will be seen that during the year there were turned back at the ports 10,411 aliens, or about 1.09 per cent of the total number applying for admission. The following comparative statement as to principal causes of rejection is inserted for convenience, carrying out a similar illustration that has been given in previous reports:

Cause of rejection.	1904.	1905.	1906.	1907.	1908.	1909.
Idiots	16	38	92	29	20	18
Imbeciles					45	42
Feeble-minded persons					121	121
Insanity (including epileptics)	33	92	139	189	184	167
Likely to become a public charge, including paupers and beggars	4,798	7,898	7,069	6,866	3,741	4,458
Afflicted with contagious disease	1,560	2,198	2,273	3,822	2,900	2,308
Afflicted with tuberculosis (contagious)					53	82
Criminals	35	39	205	341	136	273
Prostitutes and other immoral women	9	24	30	18	124	323
Procurers of prostitutes	3	4	2	1	43	181
Contract laborers	1,501	1,164	2,314	1,434	1,932	1,172

The increase in the number of aliens rejected as criminals, prostitutes, and procurers, respectively, is significant and gratifying, showing that the provisions of the act of 1907 are enabling the administrative officers not only to continue, but to improve, the good work done in this respect in the year 1908. The decrease in the number of contract laborers rejected, it is believed, is explainable on the theory that the success which has heretofore attended the efforts of the officers regarding this class has tended to discourage its coming.

Table XVII A furnishes a useful comparison, by causes of rejection, concerning aliens debarred during the years 1892 to 1909, inclusive. Table XVII B deals with a separate phase of the rejections constituted by the necessity for sometimes refusing residents of foreign contiguous territory the privilege of entering for alleged temporary purposes. It will be noted that a total of 440 such rejections have occurred.

Table XVIII covers the arrest and deportation of aliens under those provisions of law which allow such action to be taken if certain contingencies arise within the period of three years after landing, and corresponds in a general way with Table III A of the report for 1908. During the year, 2,124 warrants of deportation have been executed after granting a hearing to the arrested persons, compared with 2,069 for the fiscal year 1908. This total falls into two divisions: First, those whose deportation is mandatorily required, aggregating 2,066, and, second, those who have become public charges within one year from causes arising subsequent to landing and whose deportation is effected with the alien's consent, aggregating 58. The first-mentioned total is segregated under appropriate heads into aliens who were members of the excluded classes at time of entry, aggregating 685; aliens who became public charges from certain specified causes existing prior to entry, aggregating 990; aliens who became prostitutes after entry, aggregating 133; and aliens who entered without inspection, aggregating 258.

Tables XIX and XIX A correspond with Tables XVIII and XVII, respectively, of previous reports. It will be noted that during the year 1,877 appeals of aliens from excluding decisions have been handled, 588 of the aliens having been admitted outright, 151 admitted on bond, and in 928 cases the decisions of the boards affirmed, with 100 appeals withdrawn or otherwise disposed of and 110 remaining open at the close of the year; and that there have been 35 appeals taken by board members from admitting decisions, in 15 of which the aliens were admitted outright, 1 admitted on bond, 11 appeals sustained, rejecting the aliens, 2 withdrawn or otherwise disposed of, and 6 remaining pending at the close of the year; also that in 443 instances aliens applied for admission under bond (without taking appeal), 242 of the applications being granted and 201 denied.

Table XX (corresponding with Table XVI A of the report for 1908) is a compilation of figures furnished by the officials in charge at the various seaports, covering alien seamen reported by masters of vessels as having deserted. These figures are known to be far from accurate; in fact, the similar table in last year's report showing a total of 13,235 desertions for the year 1908, against a total of 5,839 for the past year, was not regarded as a correct statement. During the past year it has been almost impossible to obtain from the steamship lines any information regarding deserters. The decision of the Supreme Court in the Taylor case (207 U. S., 120), and the fact that there has been pending for some time a suit in which the Government undertook to enforce the payment of head tax on account of deserting seamen and in which a district court rendered an adverse decision, have tended to encourage on the part of the lines a noncompliance with the provisions of rule 22 of the immigration regulations. This loophole in the immigration law is proving more and more serious as time passes. The matter has now reached a stage where no permanent relief need be expected from any other source than new legislation.

The closely related subject of Chinese seamen should also be mentioned at this point. During the year it has been necessary to guard against the entry of approximately 35,000 such seamen who have come into our ports on merchant vessels. (See also reports for 1908, pp. 107 and 255.)

In the draft of a proposed bill herewith submitted (p. 258) there is furnished a suggestion regarding each of the above-mentioned subjects, and it is believed that if the proposed legislation should be adopted the serious difficulty would be overcome.

Table XXI corresponds with Table XVI B of the report for 1908, but shows 76 less stowaways brought to our ports during the past year than during that year. This reduction has been due, in part at least, to the enforcement of rule 23 of the immigration regulations, under which aliens coming as stowaways are not regarded as applicants for admission, and are not ordinarily examined but required to remain on board and depart with the ship. It is no longer possible to enforce said rule at New York, however, the district court there having held that examination must be accorded.

Table XXII is a repetition for the past year of the statistics obtained from the various steamship lines of passengers departing from the United States, designated in last year's report as Table XVI. The figures are interesting, but require no special comment. The law ought to provide for their collection through regular channels, and such a provision is contained in the bill suggested in Appendix I (p. 250).

Tables lettered A to F, inclusive (pp. 196–201), relate to Japanese immigration and correspond in general with a similarly lettered series given in the reports for 1908 (pp. 185–191). It is not necessary to comment upon said tables here, for a title of this report is devoted to a detailed discussion of the subject covered by them (p. 219).

Tables numbered 1 to 7, inclusive (pp. 202–209), correspond with a similarly numbered series in the reports for 1908 (pp. 245–251) and cover the various phases of the enforcement of the Chinese-exclusion laws. For an extended discussion of them, see the title devoted to that subject (p. 221).

TABLE I.—ALIENS ADMITTED, DEPARTED, DEBARRED, AND RETURNED, AND CITIZENS ARRIVED, BY PORTS, FISCAL YEARS ENDED JUNE 30, 1908 AND 1909.

Port.	Aliens.												Citizens.	
	1908.						1909.						1908.	1909.
	Admitted.		Departed.		Debarred.	Returned after landing.	Admitted.		Departed.		Debarred.	Returned after landing.	Arrived.	Arrived.
	Immigrant aliens.	Nonimmigrant aliens.	Emigrant aliens.	Nonemigrant aliens.			Immigrant aliens.	Nonimmigrant aliens.	Emigrant aliens.	Nonemigrant aliens.				
New York, N. Y.	585,970	99,008	357,190	268,415	4,643	1,079	580,617	144,140	163,902	132,221	4,361	1,217	158,619	169,820
Boston, Mass.	41,363	11,002	8,205	21,921	338	126	36,318	11,577	7,442	16,913	179	107	11,745	11,284
Philadelphia, Pa.	16,458	433	4,905	2,964	145	65	14,294	789	9,203	3,013	93	53	3,158	3,252
Baltimore, Md.	31,489	653	4,684	3,703	193	44	18,966	1,546	1,668	250	83	101	1,484	1,121
Portland, Me.	1,026	2,209	1,068	1,846	18	2	1,010	1,335	223	1,837	3	6	168	399
New Bedford, Mass.	1,079	425	239	40	13	2	545	248	247	2	3	....	77	44
Providence, R. I.	....	....	....	....	....	....	68	....	32	....	....	....	....	....
Norfolk, Va.	35	29	....	....	5	....	77	59	....	....	1	....	659	828
Savannah, Ga.	157	1	....	....	6	....	18	2	....	....	3	2	1	573
Miami, Fla.	1,104	264	359	340	10	1	1,271	465	441	583	9	1	1,470	1,245
Key West, Fla.	913	869	2,412	3,396	15	....	1,167	1,312	1,402	3,803	23	1	4,620	3,442
Knights Key, Fla.	11	145	5	90	....	....	32	246	7	206	....	....	3,144	5,162
Other Atlantic.	34	5	....	5	....	....	19	9	1	3	....	....	22	65
Tampa, Fla.	1,479	1,069	1	13	15	....	2,457	1,486	1	12	15	....	316	3,296
Pensacola, Fla.	10	3	....	....	....	....	13	3	....	....	....	....	2	....
Mobile, Ala.	97	127	5	37	3	....	37	109	12	63	2	1	334	322
New Orleans, La.	6,270	1,516	343	3,097	116	2	1,507	1,422	329	2,190	40	10	4,106	5,205
Galveston, Tex.	8,529	207	570	219	153	3	3,338	237	572	214	34	4	672	521
Other Gulf.	16	6	....	....	3	....	15	1	....	....	1	....	1	1
San Diego, Cal.	25	149	....	....	2	2	51	79	....	....	....	3	1,068	782
San Francisco, Cal.	3,608	2,976	5,199	7,704	507	38	3,103	4,273	4,697	6,789	444	193	5,303	6,351
Portland, Oreg.	73	41	....	....	2	....	35	32	....	....	....	....	1	....
Seattle, Wash.	4,890	979	1,207	1,846	87	79	1,367	975	1,198	1,233	70	64	764	393
Alaska.	185	49	....	....	1	3	202	116	....	....	....	....	....	....
Mexican border.	7,409	3,065	....	....	1,204	517	16,162	3,087	....	....	1,455	228	....	....
Through Canada:														
Atlantic ports.	59,212	14,543	3,923	1,836	3,290	101	11,971	1,942	1,406	1,534	126	38	....	....
Pacific ports.							591	770	661	838	10	....	....	....
Border stations.							53,703	14,068	29,708	....	3,265	91	....	....
Honolulu, Hawaii.	10,460	391	4,114	1,540	120	2	1,876	531	1,973	1,576	100	8	461	712
Porto Rico.	968	1,661	644	743	13	3	956	1,590	677	1,310	91	1	2,252	2,355
Total.	782,870	141,825	395,073	319,755	10,902	2,069	751,786	192,449	225,802	174,590	10,411	2,124	200,447	217,173

TABLE II.—NET INCREASE OR DECREASE OF POPULATION BY ARRIVAL AND DEPARTURE OF ALIENS, FISCAL YEARS ENDED JUNE 30, 1908 AND 1909, BY MONTHS.

Month.	1908.							1909.						
	Admitted.			Departed.			Increase (+) or decrease (−).	Admitted.			Departed.			Increase (+) or decrease (−).
	Immigrant aliens.	Nonimmigrant aliens.	Total.	Emigrant aliens.	Nonemigrant aliens.	Total.		Immigrant aliens.	Nonimmigrant aliens.	Total.	Emigrant aliens.	Nonemigrant aliens.	Total.	
July	97,132	10,403	107,535	25,076	21,122	46,198	+ 61,337	27,570	9,563	37,133	30,759	20,749	51,508	− 14,375
August	98,825	12,310	111,135	24,778	19,539	44,317	+ 66,818	27,782	11,824	39,606	28,497	19,072	47,569	− 7,963
September	98,694	16,593	115,287	24,657	19,077	43,734	+ 71,553	38,238	18,397	56,635	24,917	18,967	43,884	+ 12,751
October	111,513	18,051	129,564	28,633	27,193	55,826	+ 73,738	40,994	19,721	60,715	23,302	18,614	41,916	+ 18,799
November	117,476	15,171	132,647	49,388	45,052	94,440	+ 38,207	37,076	13,889	50,965	20,930	17,679	38,609	+ 12,356
December	66,574	10,533	77,107	45,974	42,458	88,432	− 11,325	46,003	15,108	61,111	16,454	16,962	33,416	+ 27,695
January	27,220	5,838	33,058	37,652	22,581	60,233	− 27,175	43,868	11,107	54,975	10,479	7,582	18,061	+ 36,914
February	23,381	6,885	30,266	29,733	20,955	50,688	− 20,422	67,154	14,838	81,992	8,623	6,477	15,100	+ 66,892
March	32,517	11,020	43,537	25,575	17,931	43,506	+ 31	113,038	22,002	135,040	14,062	8,488	22,550	+112,490
April	41,274	13,946	55,220	38,859	26,862	65,721	− 10,501	116,754	21,628	138,382	14,526	9,789	24,315	+114,067
May	36,317	11,928	48,245	31,869	29,382	61,251	− 13,006	107,839	19,300	127,139	17,168	14,022	31,190	+ 95,949
June	31,947	9,147	41,094	32,879	27,603	60,482	− 19,388	85,470	15,072	100,542	16,085	16,189	32,274	+ 68,268
Total	782,870	141,825	924,695	395,073	319,755	714,828	+209,867	751,786	192,449	944,235	225,802	174,590	400,392	+543,843

TABLE III.—NET INCREASE OR DECREASE OF POPULATION BY ARRIVAL AND DEPARTURE OF ALIENS, FISCAL YEARS ENDED JUNE 30, 1908 AND 1909, BY COUNTRIES.

Country.	1908.							1909.						
	Coming from.			Going to.			Increase (+) or decrease (−).	Coming from.			Going to.			Increase (+) or decrease (−).
	Immigrant aliens.	Nonimmigrant aliens.	Total aliens admitted.	Emigrant aliens.	Nonemigrant aliens.	Total aliens departed.		Immigrant aliens.	Nonimmigrant aliens.	Total aliens admitted.	Emigrant aliens.	Nonemigrant aliens.	Total aliens departed.	
Austria	82,983	3,289	171,798	64,607	47,064	177,261	− 5,463	80,853	1,197	82,050	27,782	5,505	33,287	+ 48,763
Hungary	85,526			65,590				89,338	453	89,791	21,631	4,654	26,285	+ 63,506
Belgium	4,162	334	4,496	853	718	1,571	+ 2,925	3,692	266	3,958	431	275	706	+ 3,252
Bulgaria, Servia, and Montenegro	10,827	676	11,503	3,280	2,108	5,388	+ 6,115	1,054	48	1,102	1,594	447	2,041	− 939
Denmark	4,954	111	5,065	689	456	1,145	+ 3,920	4,395	120	4,515	460	272	732	+ 3,783
France, including Corsica	8,788	1,849	10,637	3,107	3,688	6,795	+ 3,842	6,672	1,693	8,365	2,817	3,180	5,997	+ 2,368
German Empire	32,309	1,473	33,782	6,770	5,342	12,112	+ 21,670	25,540	1,735	27,275	4,905	3,854	8,759	+ 18,516
Greece	21,489	246	21,735	6,131	2,787	8,918	+ 12,817	14,111	124	14,235	5,606	1,484	7,090	+ 7,145
Italy, including Sicily and Sardinia	128,503	5,743	134,246	166,733	47,479	214,212	− 79,966	183,218	6,069	189,287	83,300	16,804	100,104	+ 89,183
Netherlands	5,946	250	6,196	330	671	1,001	+ 5,195	4,698	304	5,002	308	504	812	+ 4,190
Norway	12,412	444	12,856	2,275	1,044	3,319	+ 9,537	13,627	657	14,284	1,328	538	1,866	+ 12,418
Portugal, including Cape Verde and Azore Islands	7,307	41	7,348	1,056	341	1,397	+ 5,951	4,956	20	4,976	1,025	240	1,265	+ 3,711
Roumania	5,228	246	5,474	1,267	691	1,958	+ 3,516	1,590	78	1,668	434	140	574	+ 1,094
Russian Empire and Finland	156,711	2,125	158,836	37,777	16,418	54,195	+104,641	120,460	1,121	121,581	19,707	7,068	26,775	+ 94,806
Spain, including Canary and Balearic Islands	3,899	1,262	5,161	1,116	970	2,086	+ 3,075	2,616	1,207	3,823	1,079	835	1,914	+ 1,909
Sweden	12,809	251	13,060	2,574	832	3,406	+ 9,654	14,474	260	14,734	1,159	434	1,593	+ 13,141
Switzerland	3,281	136	3,417	684	464	1,148	+ 2,269	2,694	154	2,848	658	325	983	+ 1,865
Turkey in Europe	11,290	155	11,445	3,084	1,139	4,223	+ 7,222	9,015	225	9,240	1,267	373	1,640	+ 7,600
United Kingdom:														
England	47,031	10,306	103,686	5,019	17,536	26,164	+ 77,522	32,809	7,078	39,887	3,076	8,895	11,971	+ 27,916
Ireland	30,556			2,023				25,033	472	25,505	1,380	1,093	2,473	+ 23,032
Scotland	13,506			1,499				12,400	1,240	13,640	743	1,973	2,716	+ 10,924
Wales	2,287			87				1,584	140	1,724	51	98	149	+ 1,575
Other Europe	97	4	101	5	35	40	+ 61	46	6	52	6	7	13	+ 39
Total Europe	691,901	28,941	720,842	376,556	149,783	526,339	+194,503	654,875	24,667	679,542	180,747	58,998	239,745	+439,797

TABLE III.—NET INCREASE OR DECREASE OF POPULATION BY ARRIVAL AND DEPARTURE OF ALIENS, FISCAL YEARS ENDED JUNE 30, 1908 AND 1909, BY COUNTRIES—Continued.

Country.	1908.							1909.						
	Coming from.			Going to.			Increase (+) or decrease (−).	Coming from.			Going to.			Increase (+) or decrease (−).
	Immigrant aliens.	Nonimmigrant aliens.	Total aliens admitted.	Emigrant aliens.	Nonemigrant aliens.	Total aliens departed.		Immigrant aliens.	Nonimmigrant aliens.	Total aliens admitted.	Emigrant aliens.	Nonemigrant aliens.	Total aliens departed.	
China	1,397	1,368	2,765	3,923	1,533	5,456	− 2,691	1,943	2,541	4,484	3,411	1,532	4,943	− 459
Japan	15,803	1,591	17,394	3,431	2,303	5,734	+ 11,660	3,111	319	3,430	3,819	945	4,764	− 1,334
India	1,040	77	1,117	128	161	289	+ 828	203	137	340	48	69	117	+ 223
Turkey in Asia	9,753	422	10,175	1,847	538	2,385	+ 7,790	7,506	288	7,794	1,650	366	2,016	+ 5,778
Other Asia	372	17	389	221	50	271	+ 118	141	67	208	205	55	260	− 52
Total Asia	28,365	3,475	31,840	9,550	4,585	14,135	+ 17,705	12,904	3,352	16,256	9,133	2,967	12,100	+ 4,156
Africa	1,411	105	1,516	133	253	386	+ 1,130	858	133	991	140	168	308	+ 683
Australia, Tasmania, and New Zealand	1,098	761	1,859	241	688	929	+ 930	839	797	1,636	442	605	1,047	+ 589
Pacific islands, not specified	81	69	150	33	147	180	− 30	53	111	164	38	199	237	− 73
British North America	38,510	12,560	51,070	2,629	6,597	9,226	+ 41,844	51,941	13,895	65,836	30,478	6,689	37,167	+ 28,669
British Honduras	42	116	158	17	154	171	− 13	42	91	133	2	155	157	− 24
Other Central America	1,175	1,493	2,668	488	1,713	2,201	+ 467	888	1,564	2,452	300	1,689	1,989	+ 463
Mexico	6,067	1,574	7,641	385	1,906	2,291	+ 5,350	16,251	1,757	18,008	289	2,558	2,847	+ 15,161
South America	2,315	1,622	3,937	880	1,935	2,815	+ 1,122	1,906	1,454	3,360	925	1,626	2,551	+ 809
West Indies	11,888	4,270	16,158	4,247	9,220	13,467	+ 2,691	11,180	5,704	16,884	3,306	8,984	12,290	+ 4,594
United States	....	86,814	86,814	....	142,682	142,682	− 55,868	....	138,915	138,915	....	89,940	89,940	+ 48,975
Other countries	17	25	42	4	2	6	+ 36	49	9	58	2	12	14	+ 44
Grand total	782,870	141,825	924,695	395,073	319,755	714,828	+209,867	751,786	192,449	944,235	225,802	174,590	400,392	+543,843

TABLE IV.—NET INCREASE OR DECREASE OF POPULATION BY ARRIVAL AND DEPARTURE OF ALIENS, FISCAL YEAR ENDED JUNE 30, 1909, BY RACES.

Race.	Admitted.			Departed.			Increase (+) or decrease (−).
	Immigrant aliens.	Nonimmigrant aliens.	Total.	Emigrant aliens.	Nonemigrant aliens.	Total.	
African (black)	4,307	1,574	5,881	1,104	1,195	2,299	+ 3,582
Armenian	3,108	238	3,346	561	201	762	+ 2,584
Bohemian and Moravian	6,850	754	7,604	746	561	1,307	+ 6,297
Bulgarian, Servian, Montenegrin	6,214	1,409	7,623	2,422	1,206	3,628	+ 3,995
Chinese	1,841	5,173	7,014	3,397	6,168	9,565	− 2,551
Croatian and Slavonian	20,181	4,441	24,622	9,014	2,796	11,810	+ 12,812
Cuban	3,380	2,963	6,343	1,243	4,753	5,996	+ 347
Dalmatian, Bosnian, Herzegovinian	1,888	317	2,205	515	233	748	+ 1,457
Dutch and Flemish	8,114	2,132	10,246	903	1,919	2,822	+ 7,424
East Indian	337	113	450	48	55	103	+ 347
English	39,021	19,563	58,584	5,061	23,142	28,203	+ 30,381
Finnish	11,687	2,714	14,401	1,427	3,101	4,528	+ 9,873
French	19,423	5,149	24,572	2,862	4,555	7,417	+ 17,155
German	58,534	14,783	73,317	13,541	12,250	25,791	+ 47,526
Greek	20,262	2,191	22,453	6,275	2,853	9,128	+ 13,325
Hebrew	57,551	3,188	60,739	6,105	3,929	10,034	+ 50,705
Irish	31,185	9,361	40,546	2,059	9,732	11,791	+ 28,755
Italian (north)	25,150	9,966	35,116	16,658	8,115	24,773	+ 10,343
Italian (south)	165,248	47,609	212,857	69,781	31,286	101,067	+111,790
Japanese	3,275	1,168	4,443	3,903	3,590	7,493	− 3,050
Korean	11	6	17	114	25	139	− 122
Lithuanian	15,254	1,052	16,306	1,990	1,149	3,139	+ 13,167
Magyar	28,704	5,864	34,568	11,507	5,934	17,441	+ 17,127
Mexican	15,591	2,922	18,513	158	847	1,005	+ 17,508
Pacific Islander	7	21	28	4	29	33	− 5
Polish	77,565	8,811	86,376	19,290	8,370	27,660	+ 58,716
Portuguese	4,606	1,011	5,617	816	2,292	3,108	+ 2,509
Roumanian	8,041	1,113	9,154	1,352	750	2,102	+ 7,052
Russian	10,038	755	10,793	5,125	2,418	7,543	+ 3,250
Ruthenian (Russniak)	15,808	2,686	18,494	1,672	481	2,153	+ 16,341
Scandinavian	34,996	13,120	48,116	7,257	14,047	21,304	+ 26,812
Scotch	16,446	5,632	22,078	1,618	5,497	7,115	+ 14,963
Slovak	22,586	6,228	28,814	8,894	2,390	11,284	+ 17,530
Spanish	4,939	4,125	9,064	1,834	3,907	5,741	+ 3,323
Spanish-American	890	1,504	2,394	805	1,436	1,741	+ 653
Syrian	3,668	810	4,478	1,204	842	2,046	+ 2,432
Turkish	820	105	925	725	425	1,150	− 225
Welsh	1,699	523	2,222	171	515	686	+ 1,536
West Indian (except Cuban)	1,024	984	2,008	394	1,312	1,706	+ 302
Other peoples	1,537	371	1,908	1,874	284	2,158	− 250
Not specified	....	....	....	11,873	....	11,873	− 11,873
Total	751,786	192,449	944,235	225,802	174,590	400,392	+543,843

TABLE V.—INTENDED FUTURE PERMANENT RESIDENCE OF ALIENS ADMITTED AND LAST PERMANENT RESIDENCE OF ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909.

State or Territory.	Arrived.		Departed.	
	Immigrant aliens.	Nonimmigrant aliens.	Emigrant aliens.	Non-emigrant aliens.
Alabama	827	161	256	111
Alaska	406	94	79	61
Arizona	1,896	439	143	116
Arkansas	302	59	61	46
California	17,912	3,810	9,784	4,824
Colorado	4,285	746	1,348	506
Connecticut	20,542	3,716	3,685	1,416
Delaware	962	177	191	49
District of Columbia	1,452	314	290	167
Florida	5,273	2,170	2,067	2,392
Georgia	479	102	94	60
Hawaii	1,932	356	1,986	1,436
Idaho	1,056	107	213	145
Illinois	63,379	9,797	14,485	5,186
Indiana	6,030	992	1,165	282
Iowa	5,571	667	334	468
Kansas	3,081	352	379	166

TABLE V.—INTENDED FUTURE PERMANENT RESIDENCE OF ALIENS ADMITTED AND LAST PERMANENT RESIDENCE OF ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909—Continued.

State or Territory.	Arrived.		Departed.	
	Immigrant aliens.	Nonimmigrant aliens.	Emigrant aliens.	Nonemigrant aliens.
Kentucky	516	69	197	37
Louisiana	1,839	465	532	628
Maine	3,793	309	441	358
Maryland	4,077	655	1,365	285
Massachusetts	61,197	11,296	12,535	10,345
Michigan	21,635	2,757	2,607	1,445
Minnesota	15,194	2,762	1,697	1,928
Mississippi	319	81	115	77
Missouri	9,495	1,590	2,417	728
Montana	3,315	434	588	501
Nebraska	3,547	390	374	268
Nevada	659	107	206	65
New Hampshire	6,041	432	375	285
New Jersey	41,907	8,487	9,532	3,707
New Mexico	679	187	93	30
New York	220,865	45,739	71,405	24,726
North Carolina	267	42	65	46
North Dakota	5,144	296	177	360
Ohio	29,938	5,114	7,249	2,274
Oklahoma	1,123	134	102	36
Oregon	3,144	378	697	474
Pennsylvania	112,402	22,107	36,972	8,528
Philippine Islands	3	6	3	....
Porto Rico	964	527	656	385
Rhode Island	9,150	1,464	1,256	1,156
South Carolina	223	31	68	16
South Dakota	2,725	249	187	194
Tennessee	488	108	141	56
Texas	17,456	2,319	673	238
Utah	2,752	383	382	207
Vermont	2,614	363	331	187
Virginia	1,299	252	449	189
Washington	12,218	1,894	1,924	1,430
West Virginia	6,441	1,265	1,557	475
Wisconsin	11,849	1,691	2,014	921
Wyoming	1,123	238	152	140
Outside the United States	....	53,769	....	94,439
Unknown[a]	....	....	29,708	....
Total	751,786	192,449	225,802	174,590

[a] Left United States via Canadian border. Figures reported by Canadian government.

TABLE VI.—OCCUPATIONS OF ALL ALIENS ADMITTED AND DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909.

Occupation.	Admitted.		Departed.	
	Immigrant aliens.	Nonimmigrant aliens.	Emigrant aliens.	Nonemigrant aliens.
PROFESSIONAL.				
Actors	674	576	119	662
Architects	190	175	45	151
Clergy	771	854	188	772
Editors	131	84	20	126
Electricians	432	174	96	197
Engineers (professional)	1,397	1,549	173	1,422
Lawyers	170	368	24	428
Literary and scientific persons	353	235	30	192
Musicians	714	790	161	636
Officials (government)	253	636	48	606
Physicians	332	674	117	717
Sculptors and artists	355	464	126	457
Teachers	1,243	953	286	950
Other professional	1,071	994	375	1,048
Total professional	8,086	8,526	1,806	8,363

TABLE VI.—OCCUPATIONS OF ALL ALIENS ADMITTED AND DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909—Continued.

Occupation.	Admitted.		Departed.	
	Immigrant aliens.	Nonimmigrant aliens.	Emigrant aliens.	Nonemigrant aliens.
SKILLED.				
Bakers	2,127	655	440	478
Barbers and hairdressers	1,682	721	674	404
Blacksmiths	2,681	759	367	400
Bookbinders	269	44	23	34
Brewers	151	71	44	54
Butchers	1,804	498	402	358
Cabinetmakers	397	81	84	94
Carpenters and joiners	8,606	2,593	1,478	2,456
Clerks and accountants	7,825	3,164	1,519	3,703
Dressmakers	3,757	680	474	672
Engineers (locomotive, marine, and stationary)	826	726	326	725
Engravers	94	37	6	25
Furriers and fur workers	359	73	30	39
Gardeners	929	503	158	309
Hat and cap makers	299	36	48	39
Iron and steel workers	1,354	392	158	274
Jewelers	197	94	54	96
Locksmiths	1,226	210	31	24
Machinists	1,831	971	443	973
Mariners	3,763	2,573	532	1,808
Masons	3,860	1,376	588	603
Mechanics (not specified)	644	348	230	399
Metal workers (other than iron, steel, and tin)	444	127	42	62
Millers	391	87	29	41
Milliners	415	78	56	117
Miners	6,573	2,328	7,285	3,611
Painters and glaziers	2,086	521	350	563
Pattern makers	130	41	5	18
Photographers	202	81	44	95
Plasterers	477	163	66	125
Plumbers	473	135	80	156
Printers	511	163	69	160
Saddlers and harness makers	301	47	18	20
Seamstresses	2,912	402	195	133
Shipwrights	69	20	5	13
Shoemakers	5,592	1,311	716	507
Stokers	697	461	540	405
Stonecutters	1,337	441	153	237
Tailors	10,449	1,480	1,939	1,374
Tanners and curriers	274	54	34	36
Textile workers (not specified)	635	186	216	585
Tinners	436	108	55	71
Tobacco workers	1,666	1,113	686	1,776
Upholsterers	154	31	18	29
Watch and clock makers	328	81	53	61
Weavers and spinners	3,434	553	207	456
Wheelwrights	296	51	8	16
Wood workers (not specified)	431	68	25	25
Other skilled	1,766	1,014	916	1,506
Total skilled	87,160	27,750	21,919	26,165
MISCELLANEOUS.				
Agents	642	1,119	76	784
Bankers	219	444	20	439
Draymen, hackmen, and teamsters	580	212	196	253
Farm laborers	171,310	33,316	2,980	2,152
Farmers	8,914	3,564	2,970	4,368
Fishermen	761	375	99	315
Hotel keepers	198	230	150	197
Laborers	174,800	46,345	118,936	64,609
Manufacturers	445	584	88	539
Merchants and dealers	8,643	10,120	4,090	11,082
Servants	64,568	13,437	10,159	15,834
Other miscellaneous	4,167	4,014	2,108	4,263
Total miscellaneous	435,247	113,760	141,872	104,835
No occupation (including women and children)	221,293	42,413	30,497	35,227
Unknown[a]	....	....	29,708	....
Grand total	751,786	192,449	225,802	174,590

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[a] Left United States via Canadian border. Figures reported by Canadian government.

TABLE VII.—SEX, AGE, LITERACY, FINANCIAL CONDITION, ETC., OF IMMIGRANT

Race or people.	Sex.			Age.			Illiteracy, 14 years and over.			
							Can read but can not write.		Can neither read nor write.	
	Male.	Female.	Total.	Under 14 years.	14 to 44 years.	45 years and over.	Male.	Female.	Male.	Female.
African (black)	2,001	1,706	4,307	341	3,803	163	5	7	676	201
Armenian	2,595	513	3,108	191	2,803	114	......	1	538	119
Bohemian and Moravian	3,998	2,852	6,850	1,440	5,051	359	2	......	40	39
Bulgarian, Servian, Montenegrin	5,756	458	6,214	211	5,780	223	......	1	2,631	162
Chinese	1,706	135	1,841	232	1,514	95	1	......	137	69
Croatian and Slovenian	15,710	4,471	20,181	1,258	18,160	754	9	18	4,470	940
Cuban	2,322	1,058	3,380	536	2,554	290	1	......	36	21
Dalmatian, Bosnian, Herzegovinian	1,617	271	1,888	80	1,737	71	2	......	549	83
Dutch and Flemish	5,131	2,983	8,114	1,757	5,760	597	1	2	116	44
East Indian	327	10	337	4	312	21	1	......	98	......
English	23,440	15,581	39,021	5,745	29,359	3,917	12	18	122	83
Finnish	7,832	3,855	11,687	818	10,652	217	8	10	28	7
French	10,735	8,688	19,423	4,444	13,177	1,802	29	31	1,366	547
German	33,919	24,615	58,534	9,882	44,359	4,293	69	55	1,498	1,418
Greek	18,738	1,524	20,262	778	19,155	329	5	1	4,376	694
Hebrew	31,057	26,494	57,551	15,210	38,465	3,876	112	59	4,832	7,369
Irish	15,785	15,400	31,185	1,990	27,937	1,258	15	17	222	171
Italian (north)	18,844	6,306	25,150	2,178	22,041	931	1	1	1,489	419
Italian (south)	135,080	30,168	165,248	14,509	142,793	7,946	42	9	71,240	14,016
Japanese	1,462	1,813	3,275	149	3,032	94	......	3	205	691
Korean	9	2	11	......	11	......	......	......	1	......
Lithuanian	10,284	4,970	15,254	1,088	13,694	472	267	170	4,826	2,980
Magyar	21,027	7,677	28,704	3,003	24,315	1,386	10	5	1,955	801
Mexican	10,111	5,480	15,591	3,721	10,498	1,372	18	25	4,822	2,800
Pacific Islander	3	4	7	......	6	1	......	......	2	2
Polish	50,597	26,968	77,565	7,397	68,070	2,098	595	585	17,438	9,384
Portuguese	2,886	1,720	4,606	908	3,404	294	2	1	1,575	831
Roumanian	7,036	1,005	8,041	328	7,276	437	4	1	2,308	394
Russian	8,794	1,244	10,038	377	9,469	192	17	3	3,444	567
Ruthenian (Russniak)	10,863	4,945	15,808	961	14,320	527	33	19	5,293	2,263
Scandinavian	22,232	12,764	34,996	2,804	30,698	1,494	12	18	21	21
Scotch	10,323	6,123	16,446	2,379	12,724	1,343	9	5	41	19
Slovak	16,168	6,418	22,586	2,145	19,758	683	27	29	2,897	1,082
Spanish	4,070	869	4,939	346	4,275	318	13	4	376	96
Spanish-American	604	286	890	141	669	80	......	......	28	12
Syrian	2,383	1,285	3,668	548	2,957	163	5	1	872	760
Turkish	781	39	820	33	771	16	......	......	469	11
Welsh	1,108	591	1,699	260	1,298	141	1	......	5	5
West Indian (except Cuban)	591	433	1,024	142	766	116	3	......	28	7
Other peoples	1,444	93	1,537	59	1,444	34	1	......	801	51
Total	519,969	231,817	751,786	88,393	624,876	38,517	1,332	1,099	141,871	49,178

ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY RACES OR PEOPLES.

Money.			By whom passage was paid.			Going to join—		
Aliens bringing— $50 or over.	Aliens bringing— Less than $50.	Total amount of money shown.	Self.	Relative.	Other than self or relative.	Relative.	Friend.	Neither relative nor friend.
523	2,930	$90,036	3,305	863	139	2,744	486	1,077
173	2,419	65,083	2,530	559	19	2,677	387	44
706	3,837	202,592	3,923	2,891	36	5,586	1,155	109
518	5,279	138,097	5,662	539	13	2,301	3,468	445
640	869	73,395	1,060	670	111	754	146	941
1,026	17,129	311,186	17,160	2,927	94	12,611	7,084	486
972	934	108,070	2,540	811	29	2,037	286	1,057
188	1,492	42,206	1,696	190	2	1,444	382	62
1,933	2,729	404,153	4,706	3,319	89	5,607	1,823	684
189	123	24,834	315	15	7	44	36	257
14,678	11,627	2,353,394	25,385	12,629	1,007	23,130	7,322	8,569
1,136	9,027	250,149	8,225	3,067	395	6,002	5,046	639
4,576	5,560	777,436	10,069	8,838	516	13,616	2,569	3,238
12,164	25,312	2,287,407	36,290	21,176	1,068	43,827	10,840	3,867
1,332	17,442	398,417	18,669	1,556	37	14,040	5,877	345
3,008	21,118	754,223	22,537	34,702	312	53,973	2,829	749
4,711	20,188	1,040,837	18,348	12,379	458	26,699	2,544	1,942
3,312	17,372	633,037	19,980	5,008	162	18,141	4,633	2,376
6,741	127,669	2,318,662	125,473	38,947	828	150,838	12,344	2,066
1,469	1,619	157,903	848	2,374	53	2,471	251	558
5	2	605	9	2	....	6	1	4
467	11,712	179,953	10,692	4,460	102	13,240	1,948	66
991	21,852	411,281	21,903	6,740	61	21,229	7,151	324
494	6,039	104,724	8,434	6,988	169	7,327	1,010	7,254
3	3	400	3	3	1	2	3	2
1,769	59,785	834,872	56,650	20,330	585	66,621	10,216	728
395	2,761	78,407	2,804	1,770	32	3,208	995	403
164	7,043	98,568	7,101	930	10	4,473	3,420	148
539	8,124	145,522	8,822	1,188	28	5,864	3,697	477
268	13,567	173,314	13,384	2,396	28	11,562	4,009	237
3,898	25,696	907,471	24,728	9,432	836	24,217	8,503	2,276
5,657	5,943	982,578	11,547	4,723	176	10,174	3,711	2,561
540	18,547	330,342	17,867	4,669	50	17,633	4,824	129
1,579	2,442	220,102	4,099	754	86	2,360	1,015	1,564
564	78	93,204	577	254	59	242	95	558
532	1,889	123,859	2,344	1,312	12	3,078	399	191
61	682	17,955	769	49	2	463	318	39
663	516	86,319	1,121	549	29	1,170	318	211
425	326	70,799	741	247	36	496	146	382
113	1,227	40,436	1,402	96	39	843	594	100
79,122	482,869	17,331,828	523,718	220,352	7,716	582,750	121,881	47,155

TABLE VII A.—SEX, AGE, AND LENGTH OF RESIDENCE IN UNITED STATES OF EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY RACES OR PEOPLES.

Race or people.	Sex.		Sex, age, and continuous residence in the United States unknown. Left United States via Canadian border. Reported by Canadian government.	Total departed.	Age.			Continuous residence in the United States.				
	Male.	Female.			Under 14 years.	14 to 44 years.	45 years and over.	Not over 5 years.	5 to 10 years.	10 to 15 years.	15 to 20 years.	Over 20 years.
African (black)	743	284	77	1,104	70	900	57	874	132	17	1	3
Armenian	490	51	20	561	19	437	85	322	167	34	17	1
Bohemian and Moravian	449	250	47	746	55	566	78	605	78	3	9	4
Bulgarian, Servian, Montenegrin	2,235	77	110	2,422	31	2,133	148	2,175	127	4	5	1
Chinese	3,325	72		3,397	30	1,253	2,114	340	426	755	751	1,125
Croatian and Slovenian	7,861	1,120	33	9,014	287	8,078	616	7,781	1,111	42	28	19
Cuban	852	391		1,243	186	936	121	1,154	62	14	3	10
Dalmatian, Bosnian, Herzegovinian	477	38		515	15	462	38	439	65	7	1	3
Dutch and Flemish	527	200	176	903	69	581	77	612	87	14	9	5
East Indian	39	2	7	48	2	36	3	36	5			
English	2,326	1,474	1,261	5,061	395	2,790	615	3,081	440	131	80	68
Finnish	787	270	370	1,427	56	902	99	717	253	42	23	22
French	1,543	1,094	225	2,862	127	2,150	360	1,795	541	92	100	109
German	6,299	3,817	3,425	13,541	620	8,288	1,208	8,060	1,477	207	193	179
Greek	5,744	179	352	6,275	74	5,417	432	5,079	778	46	12	8
Hebrew	4,122	1,737	246	6,105	500	4,708	651	5,166	601	45	36	11
Irish	732	846	481	2,059	63	1,287	228	1,010	359	85	58	66
Italian (north)	14,083	2,039	536	16,658	679	14,250	1,193	13,367	2,332	207	144	72
Italian (south)	59,035	8,648	2,098	69,781	3,634	57,766	6,283	56,611	9,618	863	421	170
Japanese	3,196	698	9	3,903	223	2,811	860	1,426	1,283	623	356	206
Korean	95	19		114	6	94	14	97	15	2		
Lithuanian	1,547	443		1,990	113	1,709	168	1,659	281	26	21	3
Magyar	8,162	2,947	398	11,507	535	9,572	1,002	9,731	1,252	79	35	12
Mexican	108	50		158	15	134	9	130	16	8	3	1
Pacific Islander	4			4		4		3	1			
Polish	14,514	4,405	371	19,290	898	16,507	1,514	16,478	2,098	198	119	26
Portuguese	563	252	1	816	62	604	149	573	190	15	15	22
Roumanian	1,106	141	105	1,352	17	1,123	107	1,175	69			3
Russian	3,380	732	1,013	5,125	232	3,521	359	3,653	379	51	18	11
Ruthenian (Russniak)	1,379	277	16	1,672	35	1,480	141	1,447	177	23	5	4
Scandinavian	1,905	1,201	4,151	7,257	146	2,587	373	2,342	555	89	72	48
Scotch	515	388	715	1,618	82	689	132	784	78	23	8	10

Slovak	6,749	2,112	33	8,894	317	7,782	812	7,339	1,288	123	78	33
Spanish	1,538	256	40	1,834	98	1,510	186	1,508	177	82	13	14
Spanish-American	220	85	....	305	21	256	28	260	33	9	3	....
Syrian	907	234	63	1,204	38	979	124	794	279	41	20	7
Turkish	673	25	27	725	4	655	39	628	62	6	2	....
Welsh	65	37	69	171	4	79	19	83	9	4	3	3
West Indian (except Cuban)	199	176	19	394	36	290	49	320	36	14	4	1
Other peoples	515	18	1,341	1,874	10	502	21	500	30	3	....	....
Not specified	....	....	11,873	11,873	....	....	....	....	....	....	....	....
Total	159,009	37,085	29,708	225,802	9,804	165,778	20,512	160,154	26,967	4,027	2,666	2,280

TABLE VIII.—IMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY COUNTRIES OF LAST PERMANENT RESIDENCE AND RACES OR PEOPLES.

Country of last permanent residence.	African (black).	Armenian.	Bohemian and Moravian (Czech).	Bulgarian, Servian, and Montenegrin.	Chinese.	Croatian and Slovenian.	Cuban.	Dalmatian, Bosnian, and Herzegovinian.	Dutch and Flemish.	East Indian.	English.	Finnish.	French.	German.	Greek.	Hebrew.	Irish.	Italian (north).	Italian (south).	Japanese.	Korean.
Austria-Hungary	1		6,609	1,823		19,473		1,805	4		11		4	21,096	8	8,431	4	1,132	19		
Belgium			4			1			2,740		15		701	135		55	3	11			
Bulgaria, Servia, and Montenegro		2		990		3		1						22	1	14					
Denmark									2	1	6	5		19		50					
France, including Corsica	5	21	7	25	5	11	7	1	118	6	128	1	4,941	312	23	325	32	342	107	8	
German Empire		11	62	11	1	115	4		97	1	33	4	64	22,694	8	652	1	119	33	6	
Greece		4		7							3			2	14,059	8		1	1		
Italy, including Sicily and Sardinia		3		5		15			6		30		17	82		2	6	22,220	160,800		
Netherlands			1			4	1		4,574		5		4	63	2	36		2			
Norway											1	2	1	8		7					
Portugal, including Cape de Verde and Azore Islands	615										9		1			7			2		
Roumania		1		8							2		1	47	8	1,390					
Russian Empire		50	42	8		9			3		2	11,202	2	7,781	5	39,150		1	1		
Spain, including Canary and Balearic Islands				3		1	8				16		4	5	2	1	1	2	2		
Sweden					1				2		1	25		20		53			1		
Switzerland		1	7	1		1			4		8	1	351	2,016		34	2	231	8		
Turkey in Europe	1	67	1	2,393		3		4			3		1	4	4,462	346		4	1		
United Kingdom	18	21	12	5	3	13	2	1	101	34	26,203	25	196	602	90	3,385	27,011	160	116	24	1
Other Europe											32			1				2	5		
Total Europe	640	181	6,745	5,279	10	19,649	22	1,812	7,651	42	26,508	11,265	6,288	54,909	18.668	53,946	27,060	24,227	161,096	38	1
China					1,811				2	2	56		6	20	1	1	4	2	3	1	
Japan					5	1	1		3	2	34		2	14		1				3,035	1
India					1				2	138	33		2	7	1	4	8				
Turkey in Asia		2,839		15							5		12	3	996	344	1	1	1		
Other Asia		4									4			4	3					1	8
Total Asia		2,843		15	1,817	1	1		7	142	132		22	48	1.001	350	13	3	4	3,037	9

Africa	15	29	......	......	1	5	......	......	15	7	117	1	17	30	39	296	22	61	58	1	......
Australia, Tasmania, and New Zealand	......	......	......	1	......	9	......	4	2	1	518	8	9	34	10	23	90	10	1	......	......
Pacific islands, not specified	......	......	......	......	......	......	......	......	3	3	5	......	21	2	......	......	......	1	......	......	......
British North America	172	52	96	868	2	489	3	59	383	129	10,708	398	12,850	3,031	457	2,780	3,950	664	3,668	195	1
British Honduras	15	......	......	......	......	......	......	......	......	......	10	......	7	......	......	......	......	......	......	......	......
Other Central America	92	......	5	......	......	......	5	......	4	5	121	3	31	61	29	17	10	43	49	......	......
Mexico	3	......	1	......	7	8	14	3	3	......	55	......	60	126	12	2	8	34	21	4	......
South America	30	2	1	40	......	20	4	10	17	2	62	1	36	207	13	120	13	92	288	......	......
West Indies	3,340	1	2	11	4	......	3,331	......	29	6	785	11	76	85	33	18	19	12	58	......	......
Other countries	......	......	......	......	......	......	......	......	......	......	......	......	6	1	......	......	......	3	5	......	......
Grand total	4,307	3,108	6,850	6,214	1,841	20,181	3,380	1,888	8,114	337	39,021	11,687	19,423	58,534	20,262	57,551	31,185	25,150	165,248	3,275	11

TABLE VIII.—IMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY COUNTRIES OF LAST PERMANENT RESIDENCE AND RACES OR PEOPLES—Continued.

Country of last permanent residence.	Lithuanian.	Magyar.	Mexican.	Pacific Islander.	Polish.	Portuguese.	Roumanian.	Russian.	Ruthenian (Russniak).	Scandinavian (Norwegians, Danes, and Swedes).	Scotch.	Slovak.	Spanish.	Spanish-American.	Syrian.	Turkish.	Welsh.	West Indian (other than Cuban).	Other peoples.	Total.
Austria-Hungary	5	27,941	......	......	36,483	......	7,484	232	15,236	2	2	22,374	......	1	2	3	......	......	6	170,191
Belgium	......	1	......	......	5	1	1	7	......	10	1	......	......	......	......	......	......	......	1	3,692
Bulgaria, Servia, and Montenegro	......	......	......	......	1	......	......	1	......	......	......	5	......	......	......	5	......	......	9	1,054
Denmark	2	......	......	......	25	......	......	3	......	4,280	......	......	......	1	1	......	......	......	......	4,395
France, including Corsica	1	13	7	......	10	1	8	47	......	26	9	6	52	27	14	9	......	2	15	6,672
German Empire	48	45	......	......	1,320	......	11	35	29	92	2	23	2	12	......	1	......	2	2	25,540
Greece	......	1	......	......	......	......	......	......	......	......	......	......	......	......	......	18	......	......	7	14,111
Italy, including Sicily and Sardinia	......	7	......	1	4	2	......	1	......	6	......	......	3	3	1	2	......	1	1	183,218
Netherlands	......	......	......	......	......	......	......	......	......	5	......	......	1	......	......	......	......	......	......	4,698
Norway	......	......	......	......	1	......	......	......	......	13,607	......	......	......	......	......	......	......	......	......	13,627
Portugal, including Cape de Verde and Azore Islands	......	......	......	......	......	4,287	......	......	......	......	......	......	19	6	......	......	......	......	10	4,956
Roumania	1	3	......	......	2	......	113	......	......	4	......	......	......	......	2	......	......	......	8	1,590
Russian Empire	14,595	1	......	......	37,770	......	1	9,099	70	591	1	7	......	......	......	9	......	......	60	120,460
Spain, including Canary and Balearic Islands	......	......	3	......	......	1	......	......	......	......	......	......	2,520	17	2	......	......	17	11	2,616
Sweden	......	......	......	......	9	......	......	7	......	14,347	5	......	......	1	......	......	......	2	......	14,474
Switzerland	......	2	......	......	6	......	2	6	......	4	1	2	1	5	......	......	......	......	......	2,694
Turkey in Europe	......	1	......	......	......	......	68	2	......	......	......	......	......	......	22	528	......	......	1,104	9,015
United Kingdom	373	22	2	......	147	25	......	55	3	208	11,431	3	66	14	28	3	1,410	8	5	71,826
Other Europe	......	......	......	......	......	......	......	......	......	1	......	......	4	......	1	......	......	......	......	46
Total Europe	15,025	28,037	12	1	75,783	4,317	7,688	9,495	15,338	33,183	11,452	22,420	2,668	87	73	578	1,410	32	1,239	654.875
China	......	......	......	......	......	1	......	6	......	10	10	......	......	1	......	2	4	......	......	1,943
Japan	......	......	......	......	......	1	......	3	......	1	6	......	......	......	......	......	1	......	......	3,111
India	......	......	1	......	......	......	......	......	......	2	4	......	......	......	......	......	......	......	......	203
Turkey in Asia	......	......	......	......	......	1	1	4	......	......	1	......	......	......	3,001	190	1	......	90	7,506
Other Asia	......	......	......	1	4	......	......	48	......	1	......	......	......	......	7	5	......	......	51	141
Total Asia	......	......	1	1	4	3	1	61	......	14	21	......	......	1	3,008	197	6	......	141	12,904

Africa	3	......	......	......	2	......	......	6	......	10	30	......	17	......	39	11	3	......	24	858
Australia, Tasmania, and New Zealand	......	2	......	......	2	2	1	3	......	31	61	2	3	......	5	......	7	......	......	839
Pacific islands, not specified	......	......	2	3	......	......	......	......	......	6	......	......	6	1	......	......	......	......	......	53
British North America	207	653	2	1	1,709	6	333	393	454	1,634	4,819	160	30	1	197	12	269	15	91	51,941
British Honduras	......	......	......	......	......	......	......	......	......	......	......	......	5	3	1	......	......	1	......	42
Other Central America	......	4	12	1	1	......	1	6	2	21	12	......	43	271	3	5	1	30	......	888
Mexico	......	......	15,534	......	7	......	1	24	......	16	9	......	181	21	83	10	1	1	2	16,251
South America	19	8	2	......	55	102	13	44	14	16	14	4	95	422	118	1	......	15	6	1,906
West Indies	......	......	26	......	2	176	3	6	......	64	28	......	1,890	83	141	5	2	930	3	11,180
Other countries	......	......	......	......	......	......	......	......	......	1	......	......	1	......	......	1	......	......	31	49
Grand total	15,254	28,704	15,591	7	77,565	4,606	8,041	10,038	15,808	34,996	16,446	22,586	4,939	890	3,668	820	1,699	1,024	1,537	751,786

TABLE VIII A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY COUNTRIES OF INTENDED FUTURE RESIDENCE AND RACES OR PEOPLES.

Country of intended future residence.	African (black).	Armenian.	Bohemian and Moravian (Czech).	Bulgarian, Servian, and Montenegrin.	Chinese.	Croatian and Slovenian.	Cuban.	Dalmatian, Bosnian, and Herzegovinian.	Dutch and Flemish.	East Indian.	English.	Finnish.	French.	German.	Greek.	Hebrew.	Irish.	Italian (north).	Italian (south).	Japanese.	Korean.
Austria-Hungary		32	675	591		8,686		490	9		12	2	24	4,278	19	1,398	3	226	33		
Belgium	1								386				32	9		2					
Bulgaria, Servia, and Montenegro		6	1	1,414		33		3					2	16	2	2			4		
Denmark												7	1	2							
France, including Corsica	1	4	9	14		12	1	1	16		35		2,316	104	31	42	9	77	33	3	
German Empire		2	8			10			4		4		13	4,602		47	1	10	1	1	
Greece		16		3		14								4	5,478			7	24		
Italy, including Sicily and Sardinia			1	14		104		16	1		12		20	25	103	2		15,555	67,341		
Netherlands									283		2		1	2		15				1	
Norway											1	3									
Portugal, including Cape Verde and Azore Islands	279															1			8		
Roumania		2		25		13								7	2	87		4			
Russian Empire		1		18		11					12	1,035	1	338	2	3,989	1	4	6		1
Spain, including Canary and Balearic Islands						2	3				5		14	4			1	3	3	1	
Sweden											3	4	1	1		1	1				
Switzerland		1		4		13		1			7		88	455	3	1		74	4		
Turkey in Europe		39		180										2	191	25		5			
United Kingdom	3				1	5			4	2	2,594	2	14	22	7	132	1,478	4	4	3	
Other Europe														1					1		
Total Europe	284	103	694	2,263	1	8,903	4	511	703	2	2,687	1,053	2,527	9,872	5,838	5,744	1,494	15,969	67,462	9	1
China					3,370				1	1	12			3						7	
Japan					2					1	13			4			1			3,789	1
India										32	6		1	2		2	2				
Turkey in Asia		425		12		1		4			2		1		50	12		2	1		
Other Asia					6						3		2							50	111
Total Asia		425		12	3,378	1		4	1	34	36		4	9	50	14	3	2	1	3,846	121

Africa	14	11	......	......	......	......	......	......	1	......	19	......	4	8	7	33	......	8	6	......	......
Australia, Tasmania, and New Zealand	......	......	......	......	......	......	......	......	......	......	327	......	2	23	6	1	36	2	......	......	......
Pacific islands, not specified	......	......	......	......	2	......	......	......	2	......	3	......	5	10	......	......	......	......	......	7	1
British North America	77	20	48	144	......	97	......	......	176	8	1,747	371	237	3,445	355	246	511	539	2,100	31	......
British Honduras	1	......	......	......	......	......	......	......	......	......	1	......	......	......	......	......	......	......	......	......	......
Other Central America	12	......	......	......	6	1	2	......	1	......	25	2	12	26	13	16	1	11	5	......	......
Mexico	2	......	......	......	2	......	8	......	......	......	27	......	8	11	......	......	1	10	14	1	......
South America	9	......	1	2	......	12	1	......	4	......	48	......	23	78	3	48	4	96	179	5	......
West Indies	705	2	3	1	8	......	1,228	......	15	4	141	1	40	59	3	3	9	21	14	4	......
Other countries	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Grand total	1,104	561	746	2,422	3,397	9,014	1,243	515	903	48	5,061	1,427	2,862	13,541	6,275	6,105	2,059	16,658	69,781	3,903	114

TABLE VIII A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY COUNTRIES OF INTENDED FUTURE RESIDENCE AND RACES OR PEOPLES—Continued.

Country of intended future residence.	Lithuanian.	Magyar.	Mexican.	Pacific Islander.	Polish.	Portuguese.	Roumanian.	Russian.	Ruthenian (Russniak).	Scandinavian (Norwegians, Danes, and Swedes).	Scotch.	Slovak.	Spanish.	Spanish-American.	Syrian.	Turkish.	Welsh.	West Indian (other than Cuban).	Other peoples.	Not specified.	Total.
Austria-Hungary	26	11,026		1	10,292		928	137	1,625	4	2	8,790	3		6	48			47		49,413
Belgium					1																431
Bulgaria, Servia, and Montenegro		17			2		10	1				6			2	36			37		1,594
Denmark										450											460
France, including Corsica	1	7	5		3	1	6	21	1	8		1	22	4	8	12	1	2	6		2,817
German Empire		11			154		3	23		3		3		1	1	1			2		4,905
Greece		1			2										14	33			10		5,606
Italy, including Sicily and Sardinia		29			4	10	2	14			2	21	2	1	5	11	1		4		83,300
Netherlands	4																				308
Norway										1,323		1									1,328
Portugal, including Cape Verde and Azore Islands						735									2						1,025
Roumania		5			2		282					1				1		3			434
Russian Empire	1,944	10			8,421		3	3,819	30	41		14			5	1					19,707
Spain, including Canary and Balearic Islands			3			10	1	1					1,016	1				11			1,079
Sweden										1,146	2										1,159
Switzerland		1			2					1		2	1								658
Turkey in Europe					1		2					1			16	449			356		1,267
United Kingdom	11				5	1	2	13		17	809	2	3	2	1	1	98	2	8		5,250
Other Europe						1							3								6
Total Europe	1,986	11,107	8	1	18,889	758	1,239	4,029	1,656	2,993	815	8,842	1,050	9	60	593	100	18	470		180,747
China								1		13	3										3,411
Japan			1					2		1	4										3,819
India								1		2											48
Turkey in Asia								1							1,029	86			24		1,650
Other Asia				2			3								2	9			17		205
Total Asia			1	2			3	5		16	7				1,031	95			41		9,133

Africa	1	......	......	......	1	......	1	......	......	1	2	2	2	......	1	4	......	2	12	......	140
Australia, Tasmania, and New Zealand	......	......	......	......	......	1	......	2	......	8	28	2	......	......	3	......	1	......	......	......	442
Pacific islands, not specified	......	......	......	......	......	......	......	......	......	3	2	......	......	......	1	......	......	......	2	......	38
British North America	......	399	......	1	371	2	106	1,017	16	4,179	740	36	63	......	63	30	69	19	1,342	11,873	30,478
British Honduras	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	2
Other Central America	......	......	6	......	......	2	......	9	......	8	3	2	39	84	......	......	......	14	......	......	300
Mexico	......	......	126	......	2	......	......	......	......	7	3	......	36	23	3	2	1	2	......	......	289
South America	3	1	2	......	24	45	2	62	......	8	9	9	55	150	28	1	......	8	5	......	925
West Indies	......	......	15	......	3	8	1	1	......	34	9	1	589	39	14	......	......	331	......	......	3,306
Other countries	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	2	......	2
Grand total	1,990	11,507	158	4	19,290	816	1,352	5,125	1,672	7,257	1,618	8,894	1,834	305	1,204	725	171	394	1,874	11,873	225,802

Race or people.	La.	Me.	Md.	Mass.	Mich.	Minn.	Miss.	Mo.	Mont.	Nebr.	Nev.	N. H.	N. J.	N. Mex.	N. Y.	N. C.	N. Dak.	Ohio.	Okla.
African (black)	37	7	17	739	52		3	1				3	100		1,365	4		17	
Armenian		49	4	1,099	34	2		25				61	66		755			9	
Bohemian and Moravian (Czech)	8		141	44	158	135		113	7	384	2		143	2	1,279	1	81	541	79
Bulgarian, Servian, and Montenegrin	28	7	50	70	236	200		292	21	7	3	24	99	4	651	9	2	1,095	17
Chinese	7		6	17	1	1	8	2	4	2	3		6	1	94			5	
Croatian and Slovenian	90	3	49	44	996	1,322	16	626	270	51	30	4	313	78	1,543		5	1,783	20
Cuban	69		6	9	1	1	2	5					1	1	1,273	6		2	
Dalmatian, Bosnian, and Herzegovinian	40	1		6	12	61	2	83	29		8		108	4	435	1		33	
Dutch and Flemish	27	3	12	823	1,186	250	10	103	83	47	2	13	739	8	1,325	22	83	135	12
East Indian	5			6									17		61			1	
English	94	586	168	4,379	2,792	680	13	284	506	178	54	315	1,374	41	10,439	31	288	1,095	60
Finnish	6	117	5	1,910	3,201	1,917	4	4	140	2	9	109	172	7	1,524		37	255	1
French	155	815	26	4,383	525	161	5	59	134	21	63	2,377	230	11	4,215	2	82	125	28
German	93	31	585	776	1,870	1,069	33	1,684	289	836	27	44	3,827	42	15,618	21	1,822	3,956	360
Greek	40	215	58	3,202	131	112	11	1,072	27	143	15	1,354	321	7	6,624	25	12	829	18
Hebrew	59	128	779	3,667	442	559	24	896	5	180	6	45	2,310		34,633	25	60	1,298	22
Irish	26	237	93	5,639	821	259	7	258	384	83	19	207	1,574	17	10,807	8	129	495	29
Italian (north)	38	28	49	1,651	1,095	459	13	552	174	39	192	56	747	117	5,551	43	2	469	177
Italian (south)	738	523	597	13,049	1,618	1,094	73	1,436	52	504	65	61	9,279	82	70,437	2	22	4,904	92
Japanese	1			8	4	5		3	15	2			4		84	1		2	
Korean															6				
Lithuanian	1	206	204	2,612	191	42	39	42	4	26		175	862		2,433	3	7	216	30
Magyar	9	10	106	60	745	161		227	45	16		3	4,584		4,639		3	5,036	13
Mexican	24			7	1			20			1		2	203	251				15
Polish	12	216	569	8,151	2,930	596	3	507	35	147	1	705	8,153		18,450	4	110	2,059	55
Portuguese	1	1	1	2,897					5		14	1	2		381	1			
Roumanian	3		79	13	92	136		252	22	4		2	380		578	1	13	2,651	
Russian	15	56	222	959	104	76		65	5	14	2	143	531		3,780	1	75	97	
Ruthenian (Russniak)	4	15	49	516	137	181		131	7	11		66	2,136		4,085		96	435	4
Scandinavian (Norwegians, Danes, and Swedes)	28	115	50	1,917	908	5,240	8	92	622	746	15	72	725	6	6,012	13	2,084	212	8
Scotch	13	211	55	1,770	901	286	12	153	379	51	14	101	880	26	3,851	26	157	468	49
Slovak	8	61	70	123	275	119		304	29	16	1	1	2,047	2	3,033		4	1,822	10
Spanish	69	7	3	76	2		4	56	1	2	109		9	11	1,657	2			4
Spanish-American	36		7	12	3			2					8		494			10	
Syrian	44	19	2	441	100	43	25	53	3	21		27	96	2	1,100	10	10	142	13
Turkish	1	48	2	233	6	1	1	23				53	13	1	193			40	
Welsh	3	12	7	70	34	23		5	16	7	3	3	26	3	400	4	8	91	5
West Indian (other than Cuban)	1	2	1	38	4	1				1			18		512				
Other peoples	6	64	5	281	27	2	3	65	2	6	1	16	10	3	302	1	2	110	2
Total	1,839	3,793	4,077	61,197	21,635	15,194	319	9,495	3,315	3,547	659	6,041	41,907	679	220,865	267	5,144	29,938	1,123

TABLE IX.—IMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES OF INTENDED FUTURE RESIDENCE AND RACES OR PEOPLES—Continued.

Race or people.	Oreg.	Pa.	P. I.	P. R.	R. I.	S. C.	S. Dak.	Tenn.	Tex.	Utah.	Vt.	Va.	Wash.	W. Va.	Wis.	Wyo.	Total.
African (black)		96		101	85	1		2	8		1	9	6		1	3	4,307
Armenian		90			382				40	21	2	12	4	2	26		3,108
Bohemian and Moravian (Czech)	16	462			2	6	29	9	656			21	43	43	250	20	6,850
Bulgarian, Servian, and Montenegrin	17	1,033			8		5		180			2	80	117	91	20	6,214
Chinese	37	28					1		4	8		2	73		2		1,841
Croatian and Slovenian	28	6,066				1	13	42	41	154	2	21	372	332	894	78	20,181
Cuban		15		24				2	12			1	1				3,380
Dalmatian, Bosnian, and Herzegovinian	41	90					36		9	7	3	2	142	13	19	4	1,886
Dutch and Flemish	51	161		1	59		155	5	34	101	7	8	154	13	300	11	8,114
East Indian	17	2										4	67	1			337
English	309	2,945	3	21	1,002	40	152	65	281	635	153	215	1,936	105	268	116	39,021
Finnish	166	314			5	5	80	1	2	72	55	1	446	30	279	80	11,687
French	59	566		57	1,559	17	7	7	91	13	574	20	285	46	45	30	19,423
German	709	6,732		25	115	22	951	43	726	244	20	88	937	133	2,544	22	58,534
Greek	140	1,073			148	18	10	66	70	388	30	96	271	139	502	41	20,262
Hebrew	77	4,650		1	280	24	4	75	316	10	21	105	145	49	387		57,551
Irish	137	3,406			528	8	41	18	115	80	101	52	684	14	118	46	31,185
Italian (north)	144	2,863		6	158	1	36	44	176	192	202	28	665	283	272	189	25,150
Italian (south)	168	31,413		28	2,685	19	2	45	122	440	219	128	796	2,999	1,022	47	165,248
Japanese	44	12			1				5	18		2	399	1		6	3,275
Korean																	11
Lithuanian	11	3,420			67		2	1	8	1	37	6	44	156	253	1	15,254
Magyar	20	8,045			10		7	4	18		127	135	24	569	472	6	28,704
Mexican	1	7		15	1				13,780			21	3			3	15,591
Pacific Islander										2			1				7
Polish	31	14,945			853	2	8	24	157	6	379	35	258	552	1,441	69	77,565
Portuguese		12			307				3		10	8	4			1	4,606
Roumanian	3	2,213			11			4	12		4	22	36	160	47		8,041
Russian	26	1,642		1	51	2	20		63		53	33	383	101	104	1	10,038
Ruthenian (Russniak)	7	6,364			171	2	16		42		64	9	39	84	34	1	15,808
Scandinavian (Norwegians, Danes, and Swedes)	564	750		3	227		1,063	4	147	270	65	33	2,591	18	1,741	130	34,996
Scotch	276	1,245			269	25	40	15	63	57	287	126	1,074	50	177	134	16,446
Slovak	16	10,467			10		2		26	4	57	18	41	231	461	26	22,586
Spanish	4	24		492				2	135	7	92	6	16	87	2	25	4,939
Spanish-American	1	24		35	1				5			1	4	1	1	1	890
Syrian		633		8	105	26	14	6	93	4	18	23	7	54	13		3,668
Turkish		47			31				2	1			5	7	2		820
Welsh	20	357			5	4	14	4	11	16	31	1	126	17	63	8	1,699
West Indian (other than Cuban)		31		146	10				1			5	1			1	1,024
Other peoples	4	159			4		17		2	1			55	34	18	3	1,537
Total	3,144	112,402	3	964	9,150	223	2,725	488	17,456	2,752	2,614	1,299	12,218	6,441	11,849	1,123	751,786

TABLE IX A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES OF LAST PERMANENT RESIDENCE AND RACES OR PEOPLES.

Race or people.	Ala.	Alaska.	Ariz.	Ark.	Cal.	Colo.	Conn.	Del.	D. C.	Fla.	Ga.	Hawaii.	Idaho.	Ill.	Ind.	Iowa.	Kans.	Ky.
African (black)	1				5	1	5		3	464				1				
Armenian				3	14		11		1					71	2			4
Bohemian and Moravian (Czech)					13	1	1	1						181	4	3	4	
Bulgarian, Servian, and Montenegrin	9		14	4	65	22	4		1		1		1	375	44	1	18	1
Chinese			1	1	2,175	10			4			490	26	44		1		
Croatian and Slovenian	19	17	12	6	340	208	50		21	11	2	1	26	1,286	112	21	35	17
Cuban	5				4		3	1	9	897	2			2				
Dalmatian, Bosnian, and Herzegovinian			4		23	10	1	3	1	2				99	7			
Dutch and Flemish		1			27	3	2		2			2		135	28	10	8	
East Indian					10							10						
English	6	2	20	1	543	19	60	6	15	17	8	37	8	129	11	12	8	10
Finnish	1	1	2		26	7	2						2	58				
French	12	4	2	3	303	9	24	14	14	5		1	2	143	5	8	3	5
German	18	1	7	8	287	91	115	3	38	10	4	9	8	1,198	77	42	81	27
Greek	12			2	201	43	28	2	7	52	10		6	645	33	16	9	2
Hebrew	1		2		9	6	37		9	1	2			143	7	2	5	8
Irish			1		40	6	39	5	5			2		55		1	3	2
Italian (north)	30	1	43	10	2,308	299	356		41	2	1		49	1,487	120	70	69	57
Italian (south)	58	5	9	9	818	400	1,487	68	79	130	37		6	3,166	87	35	31	28
Japanese		12	2		1,853	36	2	1	1	7		1,310	42	14		1	1	
Korean					14							96						
Lithuanian					4	16	73							317	8		2	
Magyar	2	1	2		67	30	241	1	4					855	152	5	10	10
Mexican					56	2			4	7		1						
Pacific Islander					2													
Polish	6	3	7		21	31	763	76	1		2		1	2,227	131	9	29	3
Portuguese					100	1	16					9	1				1	
Roumanian					4		2	3			2			48	152	5		6
Russian	1	14			65	41	73	2	3	3	8			399	8	5	22	
Ruthenian (Russniak)	1	1			11	1	13	2						82	3			
Scandinavian (Norwegians, Danes, and Swedes)	15	8	2	1	101	15	69	1	4	1	1	2	13	394	13	53	7	
Scotch		1	3	4	52	8	9	1	2		1	8		65	5	7	11	1
Slovak	12	4	3	2	41	26	171	1					5	667	84	5	15	2
Spanish	28		5		98	1	1		3	402		1	17	9			1	1
Spanish-American					45	1	1		8	2				4	3		1	
Syrian	9	1		7	11	3	16		7	10	13			29	10	21	2	7
Turkish	8		1		22	1	8							62	20			
Welsh			1						1			5		6	1	1	2	
W. Indian (other than Cuban)							1		1	44				1				
Other peoples	2	2			6		1		1			2		88	38		1	6
Total	256	79	143	61	9,784	1,348	3,685	191	290	2,067	94	1,986	213	14,485	1,165	334	379	197

TABLE IX A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES OF LAST PERMANENT RESIDENCE AND RACES OR PEOPLES—Continued.

Race or people.	La.	Me.	Md.	Mass.	Mich.	Minn.	Miss.	Mo.	Mont.	Nebr.	Nev.	N. H.	N. J.	N. Mex.	N. Y.	N.C.	N.Dak.	Ohio.	Okla.
African (black)	7	1	5	262							1		18		176				
Armenian		13	2	149	6	1		4				5	8		160			7	
Bohemian and Moravian (Czech)	1		21	5	8	5		22	1	12	2		22	3	151	1		46	17
Bulgarian, Servian, and Montenegrin	10	2	26	27	37	43	1	97	81		16	1	33	7	428	14	3	194	6
Chinese	3		7	67	1	17		7	27	1			3		178			3	
Croatian and Slovenian	36		42	114	172	205	9	208	68	34	10	1	144	23	1, 856	1	10	681	
Cuban	6		6	11	1			2					8		238			1	
Dalmatian, Bosnian, and Herzegovinian	7			12	8	7		15	2	2			19		175	1		15	
Dutch and Flemish	1		1	53	89	12		5	5	3			31	2	191		4	8	1
East Indian				1									2		6				
English	16	21	12	605	94	30	2	25	14	12	9	21	95	6	1, 073	3	5	50	5
Finnish	2	1		104	319	146	2	1	23	1	2	26	5		127			27	
French	62	4	10	118	12	7	3	50	7	4	19		67	5	1, 367		1	34	1
German	33	4	267	161	204	84	17	318	29	52	6	1	587	5	3, 108	8	25	805	14
Greek	10	26	5	785	31	20		136	7	23	5	92	28		2, 722	2	2	110	3
Hebrew	3	2	43	179	5	18	5	30	2	3		2	151		4, 676	1	1	50	
Irish	1	3	6	270	7	3		8	1	4	2	8	78	1	652		3	22	
Italian (north)	102	25	92	718	363	127	12	373	121	21	113	18	262	19	5, 366	2	8	427	27
Italian (south)	149	190	360	5, 432	357	347	34	451	98	91	5	66	3, 079	15	34, 505	10	18	1, 558	9
Japanese				12		1		2	31	9			1		60		8	1	
Korean									1						1				
Lithuanian		13	25	284	13	1		8		3		14	129		443			16	
Magyar	10	3	44	138	186	58		241	7	23	2		1, 468	2	2, 618		3	1, 357	1
Mexican	3		3	3									8		59				
Pacific Islander																			
Polish	9	32	183	1, 585	407	97	3	104	3	16		80	2, 020	2	4, 556	1	1	518	6
Portuguese				443							3	1	8		126			1	
Roumanian	6		17	5	6	44		72	5	5		1	26		195			324	
Russian	2	12	122	189	35	26	2	22	2	12	2	9	266	1	1, 684	7	10	93	2
Ruthenian (Russniak)			9	15	5	5	2	30	4			2	188		313			44	
Scandinavian (Norwegians, Danes, and Swedes)	11	9	13	171	87	338		8	29	34	3	11	98		812	2	65	20	1
Scotch		16		144	17	6		6	8		1	2	42		267	4		34	
Slovak	5	29	23	64	80	38	2	94	6	8			619	2	1, 472		7	599	4
Spanish	14		3	21	1			8			5		2		764			9	
Spanish-American	10		5	6	1			2					1		165			2	
Syrian	10	11	2	211	34	4	8	24	2	1		4	13		264	6	2	86	2
Turkish	1	11	3	95	12	3	9	28	3			10	1		205	2		40	
Welsh				11		2							1		25			10	
West Indian (other than Cuban)	1	1	3	16			2						11		135		1		
Other peoples	1	12	5	49	9	2	2	16	1						86			57	3
Total	532	441	1, 365	12, 535	2, 607	1, 697	115	2, 417	588	374	206	375	9, 532	93	71, 405	65	177	7, 249	102

Race or people.	Oreg.	Pa.	P. I.	P. R.	R. I.	S. C.	S.Dak.	Tenn.	Tex.	Utah.	Vt.	Va.	Wash.	W.Va.	Wis.	Wyo.	United States residences unknown. Left United States via Canadian border. Reported by Canadian government.	Total.
African (black)		16		13	47							1					77	1,104
Armenian	4	27		2	41						1	1	2		2		20	561
Bohemian and Moravian (Czech)		60			2				88			2	1	4	17		47	746
Bulgarian, Servian, and Montenegrin	22	367			1		57	1	40	1		2	202	18	6	9	110	2,422
Chinese	152	35					1		1	2	4	1	129		2	4		3,397
Croatian and Slovenian	35	2,486			8		16	21	23	34	2	29	180	109	222	18	33	9,014
Cuban		27		13		3		1	2		1							1,243
Dalmatian, Bosnian, and Herzegovinian	5	64					5	5		1			7	11	3	1		515
Dutch and Flemish	2	38	1	7	6		1		1	1	1	2	9	4	30		176	908
East Indian	3	4			1								4				7	48
English	15	528		12	51		11	2	26	22	5	24	71	13	8	2	1,261	5,061
Finnish	17	30			1		10		1	15	5		43	1	34	15	370	1,427
French	13	123	2	59	22		3		17	9	1	7	25	10	10	8	225	2,862
German	39	1,651		8	23	7	10	7	152	10	7	15	53	25	351	6	3,425	13,541
Greek	28	436			30	7	1	4	17	152		13	28	44	85	3	352	6,275
Hebrew	2	420			7		1	2	5		4		2	3	10		246	6,105
Irish	3	276			39			2	4	1	5	5	9	1	4	1	481	2,059
Italian (north)	59	2,165		17	70	23	19	34	36	67	38	41	180	97	123	14	536	16,658
Italian (south)	59	12,277		3	498	17	3	49	82	28	62	177	241	710	239	11	2,098	69,781
Japanese	145	8			1		3	1	3	2			311			13	9	3,908
Korean													2					114
Lithuanian	1	570			6						10	5	2	5	22			1,990
Magyar	5	3,239			1	1			7	1	16	29	12	128	128	1	398	11,507
Mexican		6		11														158
Pacific Islander													1		1			4
Polish	5	5,070			244			4	52	3	101	11	65	121	283	27	371	19,290
Portuguese		2			87						18	1	1			1	1	816
Roumanian	3	258							1			1	2	47	7		106	1,362
Russian	10	774			7	1	11		34	1	10	9	39	29	44	1	1,013	5,126
Ruthenian (Russniak)	1	894			9				2		2	2	2	10	3		16	1,672
Scandinavian (Norwegians, Danes, and Swedes)	42	132		1	10		29	1	23	17	7	4	222	1	200	5	4,151	7,257

TABLE IX A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES OF LAST PERMANENT RESIDENCE AND RACES OR PEOPLES—Continued.

Race or people.	Oreg.	Pa.	P. I.	P. R.	R. I.	S. C.	S. Dak.	Tenn.	Tex.	Utah.	Vt.	Va.	Wash.	W. Va.	Wis.	Wyo.	United States residences unknown. Left United States via Canadian border. Reported by Canadian government.	Total.
Scotch	6	114			5	3	1	2	4	5	4	3	16	6	4	5	715	1,618
Slovak	9	4,397			3	2	3	1	13	5	17	19	24	124	150	4	33	8,894
Spanish	3	24		345				1	7		5	4	8	1	1	1	40	1,834
Spanish-American		27		18		1	1		1									305
Syrian	5	176		5	26		1	1	28	3	5	37	8	13	1	2	63	1,204
Turkish	1	105			8	3		1	1			4	13	11	6		27	725
Welsh		28								1			3		4		69	171
West Indian (other than Cuban)		14		142	2												19	394
Other peoples	3	104						1	2	1			7	11	14		1,341	1,874
Not specified																	11,873	11,873
Total	697	36,972	3	656	1,256	68	187	141	673	382	331	449	1,924	1,557	2,014	152	29,708	225,802

TABLE X.—IMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY OCCUPATIONS AND RACES OR PEOPLES.

Occupation.	African (black).	Armenian.	Bohemian and Moravian (Czech).	Bulgarian, Servian, and Montenegrin.	Chinese.	Croatian and Slovenian.	Cuban.	Dalmatian, Bosnian, and Herzegovinian.	Dutch and Flemish.	East Indian.	English.	Finnish.	French.	German.	Greek.	Hebrew.	Irish.	Italian (north).	Italian (south).	Japanese.	Korean.
PROFESSIONAL.																					
Actors	2	3	......	......	......	2	9	......	14	16	242	......	35	132	3	34	23	28	11	12	....
Architects	......	1	4	......	......	......	......	......	10	......	64	......	12	37	......	3	7	5	4	1	....
Clergy	7	2	4	1	2	2	1	1	12	4	182	1	59	95	17	23	99	20	39	31	....
Editors	......	......	......	......	2	......	......	......	2	1	44	1	5	20	......	11	7	5	3	1	....
Electricians	1	......	1	......	......	1	......	1	7	......	141	1	27	64	1	20	31	10	23	......	....
Engineers (professional)	6	......	5	1	......	2	3	......	60	1	461	3	106	251	1	20	53	20	17	6	....
Lawyers	......	......	......	......	......	......	1	......	3	......	53	......	11	26	1	3	11	3	8	1	....
Literary and scientific persons	2	1	5	......	......	1	1	......	8	......	76	2	11	97	3	56	31	4	9	1	....
Musicians	6	......	29	1	......	1	......	......	23	......	109	2	19	167	6	81	11	30	94	......	....
Officials (government)	......	......	......	2	20	......	7	......	6	......	78	......	8	49	......	2	8	4	2	19	....
Physicians	4	1	......	......	......	......	7	......	3	3	65	1	25	63	6	9	25	9	26	9	....
Sculptors and artists	2	1	2	1	......	......	6	......	18	......	74	......	27	91	2	19	6	33	23	2	....
Teachers	29	15	2	3	9	2	3	......	12	2	264	3	137	246	4	124	134	10	26	18	....
Other professional	13	4	3	......	197	......	2	......	25	5	276	......	53	117	2	51	58	8	9	38	....
Total professional	72	28	55	9	230	11	40	2	203	32	2,129	14	535	1,455	46	456	504	189	294	139	....
SKILLED.																					
Bakers	12	21	82	10	......	11	8	......	77	......	112	8	61	515	13	481	63	42	157	2	....
Barbers and hairdressers	5	62	16	3	......	4	21	......	11	......	67	2	44	243	17	233	26	37	732	8	....
Blacksmiths	21	26	97	2	......	19	3	2	42	......	196	20	77	379	10	379	119	39	335	2	....
Bookbinders	......	1	5	......	......	......	......	......	6	......	21	1	2	36	......	143	13	......	4	......	....
Brewers	......	......	7	......	......	......	......	......	1	......	12	......	2	105	......	14	......	......	......	......	....
Butchers	3	21	96	3	......	5	1	......	46	1	182	3	59	476	4	464	53	9	109	......	....
Cabinetmakers	2	......	......	......	......	7	......	......	6	......	72	2	15	33	......	119	7	3	12	......	....
Carpenters and joiners	74	98	154	10	......	42	14	1	248	5	965	71	350	822	25	1,459	323	153	794	7	....
Clerks and accountants	84	11	86	4	3	15	66	3	104	1	1,362	30	269	1,296	92	1,082	1,060	53	160	44	1
Dressmakers	82	1	18	3	1	30	2	5	17	......	297	7	171	291	6	1,367	326	84	443	1	....
Engineers (locomotive, marine, and stationary)	11	1	1	1	......	......	......	1	17	......	286	6	29	70	5	15	52	2	8	......	....

TABLE IX A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES OF LAST PERMANENT RESIDENCE AND RACES OR PEOPLES—Continued.

Race or people.	Oreg.	Pa.	P. I.	P. R.	R. I.	S. C.	S. Dak.	Tenn.	Tex.	Utah.	Vt.	Va.	Wash.	W. Va.	Wis.	Wyo.	United States residences unknown. Left United States via Canadian border. Reported by Canadian government.	Total.
Scotch	6	114			5	3	1	2	4	5	4	3	16	6	4	5	715	1,618
Slovak	9	4,397			3	2	3	1	13	5	17	19	24	124	150	4	33	8,894
Spanish	3	24		345				1	7		5	4	8	1	1	1	40	1,834
Spanish-American		27		18		1	1		1									305
Syrian	5	176		5	26		1	1	28	3	5	37	8	13	1	2	63	1,204
Turkish	1	105			8	3		1	1			4	13	11	6		27	725
Welsh		28								1			3		4		69	171
West Indian (other than Cuban)		14		142	2												19	394
Other peoples	3	104						1	2	1			7	11	14		1,341	1,874
Not specified																	11,873	11,873
Total	697	36,972	3	656	1,256	68	187	141	673	382	331	449	1,924	1,557	2,014	152	29,708	225,802

TABLE X.—IMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY OCCUPATIONS AND RACES OR PEOPLES.

Occupation.	African (black).	Armenian.	Bohemian and Moravian (Czech).	Bulgarian, Servian, and Montenegrin.	Chinese.	Croatian and Slovenian.	Cuban.	Dalmatian, Bosnian, and Herzegovinian.	Dutch and Flemish.	East Indian.	English.	Finnish.	French.	German.	Greek.	Hebrew.	Irish.	Italian (north).	Italian (south).	Japanese.	Korean.
PROFESSIONAL.																					
Actors	2	3	....	....	....	2	9	....	14	16	242	....	35	132	3	34	23	28	11	12	....
Architects	....	1	4	....	....	....	....	....	10	....	64	....	12	37	....	3	7	5	4	1	....
Clergy	7	2	4	1	2	2	1	1	12	4	182	1	59	95	17	23	99	20	39	31	....
Editors	....	....	....	....	2	....	....	....	2	1	44	1	5	20	....	11	7	5	3	1	....
Electricians	1	....	1	....	....	1	....	1	7	....	141	1	27	64	1	20	31	10	23	....	....
Engineers (professional)	6	....	5	1	....	2	3	....	60	1	461	3	106	251	1	20	53	20	17	6	....
Lawyers	....	....	....	....	....	....	1	....	3	....	53	....	11	26	1	3	11	3	8	1	....
Literary and scientific persons	2	1	5	....	....	1	1	....	8	....	76	2	11	97	3	56	31	4	9	1	....
Musicians	6	....	29	1	....	1	....	....	23	....	109	2	19	167	6	81	11	30	94	....	....
Officials (government)	....	....	....	2	20	....	7	....	6	....	78	....	8	49	....	2	8	4	2	19	....
Physicians	4	1	....	....	....	....	7	....	3	3	65	1	25	63	6	9	25	9	26	9	....
Sculptors and artists	2	1	2	1	....	....	6	....	18	....	74	....	27	91	2	19	6	33	23	2	....
Teachers	29	15	2	3	9	2	3	....	12	2	264	3	137	246	4	124	134	10	26	18	....
Other professional	13	4	3	....	197	....	2	....	25	5	276	....	53	117	2	51	58	8	9	38	....
Total professional	72	28	55	9	230	11	40	2	203	32	2,129	14	535	1,455	46	456	504	189	294	139	....
SKILLED.																					
Bakers	12	21	82	10	....	11	8	....	77	....	112	8	61	515	13	481	63	42	157	2	....
Barbers and hairdressers	5	62	16	3	....	4	21	....	11	....	67	2	44	243	17	233	26	37	732	8	....
Blacksmiths	21	26	97	2	....	19	3	2	42	....	196	20	77	379	10	379	119	39	335	2	....
Bookbinders	....	1	5	....	....	....	....	....	6	....	21	1	2	36	....	143	13	....	4	....	....
Brewers	....	....	7	....	....	....	....	....	1	....	12	....	2	105	....	14	....	....	....	....	....
Butchers	3	21	96	3	....	5	1	....	46	1	182	8	59	476	4	464	53	9	109	....	....
Cabinetmakers	2	....	....	....	....	7	....	....	6	....	72	2	15	33	....	119	7	3	12	....	....
Carpenters and joiners	74	98	154	10	....	42	14	1	248	5	965	71	350	822	25	1,459	323	153	794	7	....
Clerks and accountants	84	11	86	4	3	15	66	3	104	1	1,362	30	269	1,296	92	1,082	1,060	53	160	44	1
Dressmakers	82	1	18	3	1	30	2	5	17	....	297	7	171	291	6	1,367	326	84	443	1	....
Engineers (locomotive, marine, and stationary)	11	1	1	1	....	....	....	1	17	....	286	6	29	70	5	15	52	2	8	....	....

TABLE X.—IMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY OCCUPATIONS AND RACES OR PEOPLES—Continued.

Occupation.	African (black).	Armenian.	Bohemian and Moravian (Czech).	Bulgarian, Servian, and Montenegrin.	Chinese.	Croatian and Slovenian.	Cuban.	Dalmatian, Bosnian, and Herzegovinian.	Dutch and Flemish.	East Indian.	English.	Finnish.	French.	German	Greek.	Hebrew.	Irish.	Italian (north).	Italian (south).	Japanese.	Korean.
SKILLED—continued.																					
Engravers									2		28		5	18		11	10	3	1		
Furriers and fur workers			3	1							5		6	19	18	267			1		
Gardeners		3	8	12		5			70		210	4	29	137	5	22	60	16	135	1	
Hat and cap makers		1	2			1		1	1		9		8	12		232	5	8	7		
Iron and steel workers	3	21	34			3			12		363	17	26	119	5	42	110	12	32		
Jewelers	2	11	2	1					1		36	1	14	15		77	6		18		
Locksmiths			61	4		5		1			3		2	452		375		2	3		
Machinists	8	8	10	1		3	1		19		485	18	103	242	7	94	115	30	56	1	
Mariners	79	2	1			16		39	29		207	102	23	155	132	14	87	46	838	6	
Masons	23	15	100	9		57	1	1	31		531	18	57	388	17	78	102	490	1,004		
Mechanics (not specified)	5	4	3	1		5	17		12		147	6	29	76	6	35	32	26	75		
Metal workers (other than iron, steel, and tin)		7	4				1		9		89	2	12	52	6	129	13	11	22		
Millers	1		22			3			7		21	1	5	108	5	70	9	8	43		
Milliners	8	1	4						5		64		18	37		142	54	2	19		
Miners		8	114	6		172		3	58	2	1,458	97	310	413	30	19	274	1,227	413		
Painters and glaziers	14	4	35	1		5	6		75		293	18	75	271	6	582	66	18	65	1	
Pattern makers									1		40	2	1	3		1	5				
Photographers		4	2			1	3		3		39	2	5	20	2	49	4	4	16	1	
Plasterers									3		166	1	7	9		10	35	10	12		
Plumbers	3		1			1	1		6		198		16	25		48	46	3	1		
Printers	6	2	4				3		3		119	1	23	62	1	99	35	4	26	1	
Saddlers and harnessmakers	5		18						1	1	28		10	46		104	15	1	14		
Seamstresses	214	6	24			1	2		11		35	36	61	187	11	892	117	45	842	1	
Shipwrights	2								1		18			2	2		5				
Shoemakers	22	213	143	10		23	1	1	33		105	33	45	321	49	1,125	47	118	2,481		
Stokers	4	1	5	3		3		1	7		100	3	18	48	22	10	49	12	30		
Stonecutters	2	2	15	2		9		2	4		123	8	22	58		16	71	114	228		
Tailors	47	118	165	19		18	8	7	27		188	56	38	528	29	6,862	152	81	1,151	5	
Tanners and curriers	1	4	17	2		10			1		15	3	6	28	6	103	5	13	3		
Textile workers (not specified)			3						1		374	1	33	35		20	65	1	3		
Tinners	1	9	7	1		1	1		3		23	6	12	55	3	191	3	9	24		
Tobacco workers	147	2	2			1	981		83		17		10	30	12	114	9	4	6		

Upholsterers	....	....	2	....	....	....	....	....	4	....	31	....	6	31	2	38	2	2	3	....	....
Watch and clock makers	....	2	7	....	....	....	....	....	3	....	16	2	25	48	1	169	4	4	13	....	....
Weavers and spinners	....	78	41	....	....	1	1	3	105	....	837	7	1,042	314	3	191	156	121	119	1	....
Wheelwrights	4	1	31	2	....	....	....	....	5	....	34	....	7	88	....	21	9	1	2	....	....
Wood workers (not specified)	3	....	48	....	....	3	....	....	6	....	74	3	9	67	2	79	23	3	22	....	....
Other skilled	13	7	41	....	....	1	10	....	31	....	505	3	135	158	33	132	118	33	42	3	1
Total skilled	911	776	1,541	111	4	481	1,152	71	1,248	10	10,606	601	3,332	8,943	587	18,219	3,960	2,904	10,524	85	2
MISCELLANEOUS.																					
Agents	....	....	2	1	....	....	5	....	7	....	329	1	41	47	2	24	66	11	4	3	....
Bankers	....	1	....	....	....	....	1	....	18	....	81	....	22	35	....	8	20	4	2	5	....
Draymen, hackmen, and teamsters	10	3	8	....	....	2	....	....	4	....	111	4	21	41	....	35	45	15	156	....	....
Farm laborers	865	735	861	2,303	....	6,276	3	277	401	43	719	436	662	9,923	1,088	1,195	1,062	3,833	51,961	628	....
Farmers	30	59	62	141	....	600	3	21	606	26	752	48	413	1,128	26	55	685	291	2,147	15	....
Fishermen	2	....	....	....	1	6	....	8	....	....	49	20	13	6	10	9	55	1	153	15	....
Hotel keepers	....	....	1	1	....	....	....	....	5	....	46	....	14	35	16	6	27	3	12	12	....
Laborers	585	457	183	2,450	6	7,810	19	898	946	128	2,843	6,176	3,187	4,463	15,121	3,274	7,674	9,326	58,155	200	1
Manufacturers	1	....	2	....	....	....	....	....	10	....	140	....	46	124	2	20	19	4	22	3	....
Merchants and dealers	32	46	33	10	755	51	59	3	144	32	835	14	250	1,796	220	1,574	191	210	965	103	....
Servants	668	130	875	44	....	1,404	15	60	291	8	3,215	2,360	1,367	5,904	386	3,194	10,481	1,773	3,392	67	....
Other miscellaneous	138	11	24	11	333	7	9	2	51	10	843	22	229	375	30	367	258	61	102	235	1
Total miscellaneous	2,331	1,442	2,051	4,961	1,095	16,156	114	1,269	2,483	247	9,963	9,081	6,265	23,877	16,901	9,761	20,583	15,532	117,071	1,286	2
No occupation (including women and children)	993	862	3,203	1,133	512	3,533	2,074	546	4,180	48	16,323	1,991	9,291	24,259	2,728	29,115	6,138	6,525	37,359	1,765	7
Grand total	4,307	3,108	6,850	6,214	1.841	20,181	3.380	1,888	8,114	337	39,021	11,687	19,423	58,534	20,262	57,551	31,185	25,150	165,248	3,275	11

TABLE X.—IMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY OCCUPATIONS AND RACES OR PEOPLES—Continued.

Occupation.	Lithuanian.	Magyar.	Mexican.	Pacific Islander.	Polish.	Portuguese.	Roumanian.	Russian.	Ruthenian (Russniak).	Scandinavian (Norwegians, Danes, and Swedes).	Scotch.	Slovak.	Spanish.	Spanish-American.	Syrian.	Turkish.	Welsh.	West Indian (other than Cuban).	Other peoples.	Total.
PROFESSIONAL.																				
Actors		5	19		1			8		11	15		35	2		1	5	2	4	674
Architects		1	1							14	23		1				2			190
Clergy		7	5		11	8		8	7	21	44	1	19	2	13	4	17	2		771
Editors		1	1			1		2		8	12		3						1	131
Electricians	1	1	7		2	3		1		36	35		7				8	2		432
Engineers (professional)	1	8	5		7	3		13		130	174		14	8	1	2	10	4	1	1,397
Lawyers		3	5		1		1			3	14		6	9			1	5	1	170
Literary and scientific persons	1	2	1		6	1		3		9	12		2	5	1			1	1	353
Musicians	1	10	31		17		6	7	1	17	21	2	13	3			4	2		714
Officials (government)		3	2			2	2	1		10	8		4	6		1	2	7		253
Physicians		1	7		3	2	2	2	1	8	23		16	5		1	1	4		332
Sculptors and artists		1	8		1	3	1			13	12	1	7				1			355
Teachers	1	9	10		15	1	1	8	4	35	70		13	8	5		10	6	4	1,243
Other professional	1	3	11		2			3	1	51	103		7	20	2		3	3		1,071
Total professional	6	55	113		66	24	13	56	14	366	566	4	147	68	22	9	64	38	12	8,086
SKILLED.																				
Bakers	13	18	48		82	1	3	5	3	128	98	7	27		7	2	9	1		2,127
Barbers and hairdressers	2	25	22		21	5	1	3	1	18	23	2	10		14	4				1,682
Blacksmiths	32	80	26		208	2	9	21	15	302	130	34	25		13	1	12		3	2,681
Bookbinders	1	4			3			1		19	7				1		1			269
Brewers		1			4					4	1									151
Butchers	7	34	11		60	1		2	6	40	67	21	4		7	1	8			1,804
Cabinetmakers	8	2			14		2	5		36	42	8					2			397
Carpenters and joiners	67	105	157	2	329	19	15	64	31	1,149	749	55	104	4	81	2	40	13	5	8,606
Clerks and accountants	31	59	91		76	11	6	14	6	528	675	5	315	23	32	3	45	72	7	7,825
Dressmakers	12	59	6		124	5	4	11	11	161	125	4	10		38	1	20	13	1	3,757
Engineers (locomotive, marine, and stationary)		8	4		7			5		112	165		3	2			12	3		826

Engravers	......	......	......	...	2	1	......	2	......	1	6	1	......	......	......	......	2	......	1	94
Furriers and fur workers	2	13	......	...	3	......	2	1	4	8	1	3	......	......	......	......	......	......	2	359
Gardeners	1	10	1	...	19	......	......	4	......	65	105	......	1	......	1	......	4	......	1	929
Hat and cap makers	......	2	2	...	3	......	......	1	......	2	1	......	......	......	......	......	1	......	......	299
Iron and steel workers	8	20	7	...	46	1	1	4	3	105	328	2	17	......	3	......	9	1	......	1,354
Jewelers	......	1	3	...	......	......	......	......	......	4	3	......	......	......	......	......	......	2	......	197
Locksmiths	19	39	......	...	192	1	5	35	2	6	1	16	1	......	......	......	......	......	1	1,226
Machinists	5	31	23	...	38	1	2	24	3	196	209	9	12	5	5	......	5	2	......	1,831
Mariners	9	3	16	...	10	19	......	14	3	1,523	55	1	209	16	2	1	6	99	1	3,763
Masons	4	51	51	...	100	7	4	5	16	182	350	51	64	......	31	......	18	2	2	3,860
Mechanics (not specified)	1	5	14	...	9	......	......	5	......	34	63	......	19	3	8	......	2	2	......	644
Metal workers (other than iron, steel, and tin)	......	3	7	...	13	......	......	1	1	18	37	2	2	......	1	......	1	1	......	444
Millers	......	15	......	...	27	......	3	1	3	26	7	5	......	......	......	......	1	......	......	391
Milliners	......	6	......	...	7	......	......	1	1	9	23	3	3	......	......	......	7	......	1	415
Miners	182	65	206	...	185	1	18	24	12	125	797	57	80	4	8	......	201	1	3	6,573
Painters and glaz'ers	4	18	17	...	48	1	1	7	......	257	157	6	11	4	4	2	5	5	4	2,086
Pattern makers	......	......	......	...	......	......	......	......	......	1	73	......	......	......	......	......	3	......	......	130
Photographers	1	2	5	...	2	......	......	5	......	17	11	......	1	......	1	......	1	1	......	202
Plasterers	......	......	......	...	2	......	......	......	......	5	201	......	1	......	2	......	13	......	......	477
Plumbers	2	1	4	...	5	......	......	......	......	3	106	......	......	1	......	......	1	1	......	473
Printers	......	3	13	...	8	2	1	1	......	27	50	4	6	2	1	1	2	1	......	511
Saddlers and harnessmakers	2	5	7	...	12	......	......	2	......	14	7	6	......	......	1	......	1	1	......	301
Seamstresses	8	10	28	...	75	4	......	......	6	209	7	7	10	6	20	......	1	36	......	2,912
Shipwrights	......	......	......	...	......	......	......	......	......	16	23	......	......	......	......	......	......	......	......	69
Shoemakers	34	103	42	...	239	6	10	37	22	137	33	73	8	......	67	3	1	1	6	5,592
Stokers	4	5	17	...	9	42	......	2	1	57	66	3	167	2	1	......	5	......	......	697
Stonecutters	1	......	......	...	13	4	1	4	1	147	387	3	20	1	5	......	74	......	......	1,337
Tailors	97	80	26	...	248	......	4	61	19	181	104	54	18	......	36	......	10	7	5	10,449
Tanners and curriers	4	6	2	...	14	......	......	......	1	12	1	12	3	......	......	......	......	2	......	274
Textile workers (not specified)	......	1	1	...	7	4	......	2	......	3	81	......	......	......	......	......	......	......	......	635
Tinners	......	6	6	...	16	1	......	4	......	22	18	10	2	......	1	......	1	......	......	436
Tobacco workers	......	1	11	...	5	......	......	3	......	14	8	2	200	......	1	1	1	......	1	1,666
Upholsterers	1	1	......	...	3	......	......	1	......	7	20	......	......	......	......	......	......	......	......	154
Watch and clock makers	......	......	......	...	5	......	1	......	......	14	12	......	......	......	1	......	......	......	1	328
Weavers and spinners	......	4	1	...	95	8	......	11	5	23	214	5	3	......	36	3	3	......	3	3,434
Wheelwrights	4	17	......	...	30	......	2	......	3	11	15	6	......	......	2	......	1	......	......	296
Wood workers (not specified)	1	6	1	...	17	......	......	1	......	27	32	2	......	......	......	......	1	1	......	431
Other skilled	1	5	48	...	23	2	1	8	......	125	239	2	21	5	1	1	15	1	2	1,766
Total skilled	568	933	924	2	2,458	149	96	402	179	6,130	5,993	481	1,377	78	432	26	545	269	50	87,160

TABLE X.—IMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY OCCUPATIONS AND RACES OR PEOPLES—Continued.

Occupation.	Lithuanian.	Magyar.	Mexican.	Pacific Islander.	Polish.	Portuguese.	Roumanian.	Russian.	Ruthenian (Russniak).	Scandinavian (Norwegians, Danes, and Swedes).	Scotch.	Slovak.	Spanish.	Spanish-American.	Syrian.	Turkish.	Welsh.	West Indian (other than Cuban).	Other peoples.	Total.
MISCELLANEOUS.																				
Agents	......	......	......	....	1	......	1	2	......	23	56	......	6	2	......	......	7	......	1	642
Bankers	......	......	......	....	1	1	......	1	......	3	11	1	2	......	......	......	1	......	1	219
Draymen, hackmen, and teamsters	1	6	2	....	12	3	......	2	1	22	71	......	2	......	......	......	2	1	......	580
Farm laborers	7,204	14,098	231	....	31,380	242	4,775	4,998	8,089	2,507	455	12,752	253	......	563	144	40	34	274	171,310
Farmers	6	37	73	....	102	46	9	37	30	857	298	26	56	9	58	41	57	12	52	8,914
Fishermen	......	3	2	....	2	57	......	......	......	329	9	1	9	......	......	......	......	1	......	761
Hotel keepers	......	2	2	....	2	......	......	......	......	2	8	......	1	2	......	......	1	......	......	198
Laborers	2,185	3,585	6,211	....	15,314	1,860	1,304	2,782	2,172	10,021	1,137	1,908	836	13	489	272	116	28	665	174,800
Manufacturers	......	2	2	....	1	......	......	......	......	6	38	......	1	1	......	......	1	......	......	445
Merchants and dealers	8	51	87	....	46	25	11	36	7	170	243	12	230	89	172	21	20	60	32	8,643
Servants	1,756	1,415	297	1	10,954	666	126	244	2,067	7,925	1,396	1,572	145	41	150	5	96	57	21	64,568
Other miscellaneous	7	18	127	....	48	5	2	15	5	169	420	6	100	33	37	4	26	14	12	4,167
Total miscellaneous	11,167	19,217	7,034	1	57,863	2,905	6,228	8,117	12,371	22,034	4,142	16,278	1,641	190	1,469	487	367	207	1.058	435,247
No occupation (including women and children)	3,513	8,499	7,520	4	17,178	1,528	1,704	1,463	3,244	6,466	5,745	5,823	1,774	554	1,745	298	723	510	417	221,293
Grand total	15,254	28,704	15,591	7	77,565	4,606	8,041	10,038	15,808	34,996	16,446	22,586	4,939	890	3,668	820	1,699	1,024	1,537	751,786

TABLE X A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY OCCUPATIONS AND RACES OR PEOPLES.

Occupation.	African (black).	Armenian.	Bohemian and Moravian (Czech).	Bulgarian, Servian, and Montenegrin.	Chinese.	Croatian and Slovenian.	Cuban.	Dalmatian, Bosnian, and Herzegovinian.	Dutch and Flemish.	East Indian.	English.	Finnish.	French.	German.	Greek.	Hebrew.	Irish.	Italian (north).	Italian (south).	Japanese.	Korean.
PROFESSIONAL.																					
Actors	2	....	....	....	....	6	8	....	2	....	21	....	3	17	....	1	....	....	6	9	....
Architects	....	....	....	1	....	....	....	....	....	....	13	....	1	11	....	5	....	1	4	2	....
Clergy	4	2	1	....	1	....	3	1	4	1	19	1	25	15	1	11	8	8	8	18	....
Editors	....	....	....	....	....	....	....	....	....	....	5	1	1	1	....	....	....	....	....	5	1
Electricians	1	....	....	....	2	....	3	....	....	....	17	....	3	22	....	8	2	2	4	3	....
Engineers (professional)	2	....	....	....	2	....	1	....	3	....	26	1	22	32	1	1	2	5	5	6	....
Lawyers	1	....	....	....	....	....	3	....	....	....	4	....	2	....	1	....	1	1	1	....	....
Literary and scientific persons	....	....	....	....	....	....	....	....	....	....	5	....	3	8	....	2	1	2	3	....	....
Musicians	....	1	1	1	....	5	2	....	3	....	6	....	3	42	....	10	1	20	41	....	....
Officials (government)	1	....	....	....	2	....	....	....	1	....	9	....	4	4	....	....	1	2	3	6	....
Physicians	1	2	....	....	3	4	9	....	2	1	21	1	3	8	2	....	....	6	18	9	....
Sculptors and artists	....	1	....	....	2	1	....	....	2	1	12	....	22	21	2	3	1	21	21	1	....
Teachers	1	2	3	....	....	3	2	....	1	2	36	....	67	86	1	17	4	6	13	7	1
Other professional	8	1	2	....	19	....	9	....	4	1	47	1	18	61	1	8	21	9	11	65	....
Total professional	21	9	7	2	31	19	40	1	22	6	241	5	177	328	9	66	42	83	138	131	2
SKILLED.																					
Bakers	2	....	3	1	2	5	4	....	4	....	10	....	12	138	2	41	3	34	65	4	....
Barbers and hairdressers	1	1	3	6	1	10	12	....	1	....	15	....	9	38	19	31	....	25	443	4	....
Blacksmiths	1	....	7	1	1	14	....	2	4	....	19	1	1	46	2	27	10	30	82	....	....
Bookbinders	....	....	....	2	....	....	1	....	....	....	1	....	1	5	....	6	....	....	2	....	....
Brewers	....	....	5	....	....	2	....	....	....	....	....	....	....	29	....	1	....	....	....	....	....
Butchers	....	....	11	1	....	9	....	1	2	....	9	....	23	97	5	59	5	13	62	....	....
Cabinetmakers	....	....	5	....	....	2	....	....	....	....	6	....	1	29	....	4	1	2	6	....	....
Carpenters and joiners	8	7	12	3	5	45	5	....	25	....	163	21	27	130	20	133	18	112	265	12	....
Clerks and accountants	6	7	8	1	7	7	36	3	21	1	177	1	85	274	25	196	38	78	171	24	....
Dressmakers	13	1	4	....	1	5	1	....	1	....	13	....	104	51	....	77	11	40	72	1	....
Engineers (locomotive, marine, and stationary)	1	2	....	....	1	1	2	1	5	....	67	2	33	68	2	4	2	4	27	5	....

TABLE X A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY OCCUPATIONS AND RACES OR PEOPLES—Continued.

Occupation.	African (black).	Armenian.	Bohemian and Moravian (Czech).	Bulgarian, Servian, and Montenegrin.	Chinese.	Croatian and Slovenian.	Cuban.	Dalmatian, Bosnian, and Herzegovinian.	Dutch and Flemish.	East Indian.	English.	Finnish.	French.	German.	Greek.	Hebrew.	Irish.	Italian (north).	Italian (south).	Japanese.	Korean.
SKILLED—continued.																					
Engravers													1	3							
Furriers and fur workers			2										1	3	6	12					
Gardeners			1	2	7	3		1	4		12		12	35	4	1	9	11	21	2	
Hat and cap makers			1											2	1	18		6	9		
Iron and steel workers		1		3		4			4		15	3	3	25		10	7	3	3		
Jewelers									2			1	3	7	2	18		4	8		
Locksmiths			2			2							1	5		1		4	1		
Machinists	3		4	6		13	3	1	4		58	6	11	84		22	13	12	45	2	
Mariners	49			1		11	3	1	6		34	9	3	22	13	10	4	6	72	5	
Masons	2	7	3	3	1	16			3		63	1	12	45	6	16	8	165	147	1	
Mechanics (not specified)				1		5	5		3		27		21	37	4	3	4	12	30	4	
Metal workers (other than iron, steel, and tin)						1					7		5	6	1	3	1	1	4		
Millers		1	2			1								6	6			1	2		
Milliners			1			1		2	1		7		9	7		10	4	1			
Miners	1	32	10	109	16	1,467		38	11		160	174	46	124	116	14	16	1,655	690	10	
Painters and glaziers	2	1	2	1		7	4		7		22	3	17	44	1	70	5	15	74	1	
Pattern makers											3			1							
Photographers	3		2								6		2	6	1	4		1	6	4	
Plasterers									2		18	1		2		2		21	1		
Plumbers	1		1			1	2		1		20			7		12	5	1	10	1	
Printers			1				1				11		3	7	1	11	2	2	10	1	
Saddlers and harness makers											2			3	1	2			1		
Seamstresses	13					1					3		12	11		8	9		2		
Shipwrights											2										
Shoemakers	2	13	8	2		15		1	1		7		3	39	20	79	4	40	342		
Stokers	1		1			3			3		13	4	5	10	3		21	5	14		
Stonecutters				1		1	2				7	7		7	1	1		44	31		
Tailors	3	8	14	6	7	46	4	7	2		16	4	18	100	12	854	3	57	367	4	
Tanners and curriers			1			2			1					9	1	3			3		
Textile workers (not specified)		1				1			1		23	11	2		3	3	8		39		
Tinners			2		1						6		3	7		18		7	1		
Tobacco workers	15	1				2	395		6		2		1	13		33		6	30		

Upholsterers	......	......	......	......	......	1	......	......	......	......	......	......	1	5	......	4	3	......	......	......	....
Watch and clock makers	......	......	1	......	......	......	......	......	2	......	2	......	6	12	......	10	......	1	9	......	....
Weavers and spinners	......	2	1	......	......	3	......	......	4	......	41	8	21	23	......	3	6	22	10	......	....
Wheelwrights	......	......	1	......	......	......	......	......	......	......	......	......	......	2	......	1	......	......	1	......	....
Wood workers (not specified)	......	......	1	......	......	1	......	1	1	......	1	......	......	6	......	......	......	......	2	......	....
Other skilled	7	2	5	......	124	22	4	......	16	......	64	5	38	83	27	79	17	14	43	52	....
Total skilled	134	87	125	150	174	1,730	484	59	148	1	1,132	262	556	1,713	305	1,914	237	2,455	3,223	137	....
MISCELLANEOUS.																					
Agents	1	......	......	1	......	......	1	......	2	......	24	......	6	13	1	1	2	6	4	2	1
Bankers	......	......	......	......	......	......	......	......	......	......	5	......	1	6	......	......	......	2	1	4	....
Draymen, hackmen, and teamsters	1	......	1	2	......	3	3	......	1	......	11	2	6	15	1	20	6	28	54	1	....
Farm laborers	250	7	3	32	10	251	......	20	2	8	13	1	35	19	57	......	5	727	338	1,014	73
Farmers	4	3	21	18	99	165	1	14	53	2	113	40	66	360	25	17	30	175	231	508	3
Fishermen	......	......	......	......	1	......	......	5	1	......	31	1	1	1	......	1	7	4	11	......	....
Hotel keepers	......	......	......	......	25	9	......	2	......	......	7	1	18	12	3	1	3	28	7	19	....
Laborers	280	345	272	1,997	1,925	5,559	49	358	223	13	350	429	395	2,952	4,943	1,404	338	10,087	52,814	767	8
Manufacturers	......	......	......	......	......	......	2	......	......	......	9	......	6	21	8	6	......	8	12	......	....
Merchants and dealers	5	21	4	17	845	32	46	8	16	4	92	4	119	304	258	609	16	207	319	255	3
Servants	111	15	73	26	74	312	10	9	36	1	303	82	321	1,349	54	374	513	465	1,935	94	....
Other miscellaneous	73	8	5	8	98	49	12	2	14	1	148	10	147	199	37	120	62	122	321	176	2
Total miscellaneous	725	399	379	2,101	3,077	6,380	124	418	348	29	1,106	570	1,121	5,251	5,387	2,553	982	11,859	56,047	2,840	90
No occupation (including women and children)	147	46	188	59	115	852	595	37	209	5	1,321	220	783	2,824	222	1,326	317	1,725	8,275	786	22
Occupations unknown; left United States via Canadian border; reported by Canadian government	77	20	47	110	......	33	......	......	176	7	1,261	370	225	3,425	352	246	481	536	2,098	9	....
Grand total	1,104	561	746	2,422	3,397	9,014	1,243	515	903	48	5,061	1,427	2,862	13,541	6,275	6,105	2,059	16,658	69,781	3,903	114

TABLE X A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY OCCUPATIONS AND RACES OR PEOPLES—Continued.

Occupation.	Lithuanian.	Magyar.	Mexican.	Pacific Islander.	Polish.	Portuguese.	Roumanian.	Russian.	Ruthenian (Russniak).	Scandinavian (Norwegians, Danes, and Swedes).	Scotch.	Slovak.	Spanish.	Spanish-American.	Syrian.	Turkish.	Welsh.	West Indian (other than Cuban).	Other peoples.	Not specified.	Total.
PROFESSIONAL.																					
Actors			3					3		1	1	2	27	2		1			4		119
Architects										3	2			2							45
Clergy	1	3			3			7	1	14	4	2	16	1	1		1	3			188
Editors		1						1		1			2	1							20
Electricians					4		1	1		4	8	1	7	2		1					96
Engineers (professional)	1	2	3		1	1		2		20	11		3	13	1		1	5			173
Lawyers			1								2		3	3				1			24
Literary and scientific persons		2								2				1					1		30
Musicians	1	7			2		1	5		3		2	2					2			161
Officials (government)			2			1					2		4	2				3	1		48
Physicians			1					4		2	1		5	6	3			1	4		117
Sculptors and artists		2			2			2		3	1		4								125
Teachers		1	2		9			3	2	9	1	2	2	2							285
Other professional	1	3	2		3			4		30	9	2	14	8	1		2	9	1		375
Total professional	4	21	14		24	2	2	32	3	92	42	11	89	43	6	2	4	24	11		1,806
SKILLED.																					
Bakers		18			33	2	2	16	1	13	8	4	10					3			440
Barbers and hairdressers	1	30			8	3	2	3	1	1	1	2	1			1		1			674
Blacksmiths	4	25	1		28		3	15	3	22	5	10			1	1		1			367
Bookbinders					1			3		1											23
Brewers					4			1				1	1								44
Butchers	9	38			24			17		5	3	7			1			1			402
Cabinetmakers		5			9				1	7	3	3									84
Carpenters and joiners	8	78	1		89	9	3	52	3	133	32	18	22	1	6	2	2	5	3		1,478
Clerks and accountants	2	27	9		31	3	5	39	1	63	50	4	62	9	20	3	2	20	3		1,519
Dressmakers		10			8	1	1	12		22	7	1	1		7	1		7	1		474
Engineers (locomotive, marine, and stationary)	2	10			11		1	7		27	21	3	4	6		1	2	3	1		326

Engravers											2										6
Furriers and fur workers		1			1		1	1				2									30
Gardeners		7			6		1	1		7	4	2			3	2					158
Hat and cap makers					3		1	5		1						1					48
Iron and steel workers	4	8			22			5		12	10	10			5		1				158
Jewelers		1						4		3	1										54
Locksmiths		2			11			2													31
Machinists	4	33	1		27	2	1	12		36	15	9	5	3	4		1	3			443
Mariners	3	7	3		4	4	1	6		174	4	1	48	2	2	2		22			532
Masons		11			14		1	5		14	20	4	12		2	3		2	1		588
Mechanics (not specified)	1	12			8		1	2		20	3	5	16	1				5			230
Metal workers (other than iron, steel, and tin)		4			2			3			3	1									42
Millers		1			4			1		2	2										29
Milliners	2	1			2		1	2		2			2					1			56
Miners	114	501	1		629		22	113	148	49	43	851	11	2	23	53	17		19		7,285
Painters and glaziers	2	12			9	1	1	16		20	8	3		1		1					350
Pattern makers											1										5
Photographers		1			1			3		1	1							2			44
Plasterers		4						2		2	10						1				66
Plumbers		2			1			4		2	8		1								80
Printers		3	1		3			4		2	2	1		2				1			69
Saddlers and harness makers		2			6					1											18
Seamstresses	4	1			95			1	3	10	4							18			195
Shipwrights										2	1										5
Shoemakers	6	23			40	5	1	22	1	14	3	14	2		3	2		2	2		716
Stokers	6	9			10	42		5	3	13	3	13	348	3		1		1			540
Stonecutters		4			2	5		1		5	5	1	24		1	1	2				153
Tailors	21	65			77	1	5	166	2	17	5	33	2	1	5	3		2	2		1,939
Tanners and curriers					5			1		1	1	6									34
Textile workers (not specified)		2			71	25		3	1	1	8	9			3	1					216
Tinners		2						6				1					1				55
Tobacco workers	1	34	2		8			4	3	5		11	113					1			686
Upholsterers		1			2					1											18
Watch and clock makers	1	1			4			1		1	1				1						53
Weavers and spinners	3	3			19	7		4		2	13	2			7	3					207
Wheelwrights		1			1							1									8
Wood workers (not specified)	1	2			6			1		1			1								25
Other skilled	13	36	3		125		3	28	10	25	14	33	4	5	3	4	2	2	4		916
Total skilled	212	1,038	22	....	1,464	110	57	599	181	740	325	1,066	690	36	97	86	31	103	36	......	21,919

TABLE X A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY OCCUPATIONS AND RACES OR PEOPLES—Continued.

Occupation.	Lithuanian.	Magyar.	Mexican.	Pacific Islander.	Polish.	Portuguese.	Roumanian.	Russian.	Ruthenian (Russniak).	Scandinavian (Norwegians, Danes, and Swedes).	Scotch.	Slovak.	Spanish.	Spanish-American.	Syrian.	Turkish.	Welsh.	West Indian (other than Cuban).	Other peoples.	Not specified.	Total.
MISCELLANEOUS.																					
Agents	......	......	......	....	1	......	......	......	......	3	3	......	2	2	......	......	......	......	......	......	76
Bankers	......	1	......	....	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	20
Draymen, hackmen, and teamsters	1	9	......	....	8	......	......	4	......	10	3	3	......	......	1	1	......	1	......	......	196
Farm laborers	......	7	......	....	1	......	3	16	......	8	4	18	14	1	24	14	......	5	......	......	2,980
Farmers	7	168	2	....	188	31	28	73	10	179	8	249	38	6	11	8	3	4	9	......	2,970
Fishermen	......	......	......	....	......	25	......	......	......	10	......	......	......	......	......	......	......	......	......	......	99
Hotel keepers	......	3	......	....	2	......	......	3	......	1	1	2	3	......	......	......	......	......	......	......	150
Laborers	1,295	6,608	8	2	12,641	314	999	2,412	1,182	740	94	5,329	334	5	460	520	19	21	445	......	118,936
Manufacturers	......	......	......	....	3	......	......	......	......	6	1	......	4	......	1	1	......	......	......	......	88
Merchants and dealers	6	42	16	....	36	9	9	110	1	16	18	20	235	21	305	25	3	26	8	......	4,090
Servants	48	1,008	10	....	1,070	90	48	148	90	588	72	665	36	18	55	8	11	35	2	......	10,159
Other miscellaneous	9	55	3	....	82	15	4	50	6	67	45	63	49	13	4	12	......	17	......	......	2,108
Total miscellaneous	1,366	7,901	39	2	14,032	484	1,091	2,816	1,289	1,628	249	6,349	715	66	861	589	36	109	464	......	141,872
No occupation (including women and children)	408	2,149	83	2	3,399	219	97	665	183	646	287	1,435	300	160	177	21	31	139	22	......	30,497
Occupations unknown; left United States via Canadian border; reported by Canadian government	......	398	......	....	371	1	105	1,013	16	4,151	715	33	40	......	63	27	69	19	1,341	11,873	29,708
Grand total	1,990	11,507	158	4	19,290	816	1,352	5,125	1,672	7,257	1,618	8,894	1,834	305	1,204	725	171	394	1,874	11,873	225.802

TABLE XI.—IMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES OF INTENDED FUTURE RESIDENCE AND OCCUPATIONS.

Occupation.	Ala.	Alaska.	Ariz.	Ark.	Cal.	Colo.	Conn.	Del.	D. C.	Fla.	Ga.	Hawaii.	Idaho.	Ill.	Ind.	Iowa.	Kans.	Ky.	La.
PROFESSIONAL.																			
Actors			1		15		2			20		3		54		5			
Architects					11	1	2	1	1		2			21	2	5			2
Clergy	3	1	1	1	64	5	8	3	26	5	2	22	1	69	7	15	11	3	10
Editors			1		4	2			4	1			1	9	1				1
Electricians			2		27	3	7		3	3				37	5	4	1		4
Engineers (professional)	3		14	2	105	20	17		8	7	3	2	6	60	5	13	2	1	3
Lawyers			1		12	2	1		4	2		1		8				1	1
Literary and scientific persons	1		2		18	3	4		3			1		14	3	1	1	1	
Musicians			6		27		6		5	12			1	48	2	1	3		2
Officials (government)					29				33	2	1	1		9				1	4
Physicians	1				30	3	2		13	6	1	2		30		1		1	6
Sculptors and artists		1			29	2	5		2	3				19	1	2			2
Teachers	2			1	50	6	18		3	10	3	9	3	53	3	9	3	3	6
Other professional	1	1	3		282	9	20	5	32	2	3	45	2	92	5	8	6	1	6
Total professional	11	3	31	4	703	56	92	9	137	73	15	86	14	523	34	64	27	12	47
SKILLED.																			
Bakers	1		10		45	11	47		5	23			4	186	8	33	3	3	7
Barbers and hairdressers	2				27	5	39	2	5	26	2	5	2	129	4	6	5	2	7
Blacksmiths	3	1	13	2	66	12	63	4	2	11	2	5	11	233	27	31	11		4
Bookbinders					4	1	2		1					21	2	2			
Brewers				1	4	1							1	15	1	6	2		
Butchers		1	3	2	36	9	32	1	3	5	1		7	209	9	23	10	2	4
Cabinetmakers					8	1	2		2				1	44	2	1	1		1
Carpenters and joiners	7	12	41	3	265	53	196	7	18	83	2	12	17	764	33	95	24	3	22
Clerks and accountants	15	4	12	12	366	50	93	10	17	270	18	15	14	648	37	62	24	14	38
Dressmakers	2		4		124	18	83	1	7	9	3	1	1	244	13	32	12	4	22
Engineers (locomotive, marine, and stationary)	2	2	3		53	4	12	6	4	7	6	4	4	52	7	11	3	1	4
Engravers		1		1	2		2							7	1				1
Furriers and fur workers							4							22	1		2		
Gardeners		2	2	1	37	9	17	3	2	4	1	1	3	82	6	21	4		12
Hat and cap makers					3	1	4							22	4				1
Iron and steel workers	2	1	2		21	1	30	1	1	2	3		2	130	13	7	6	1	
Jewelers	1		2		9	2	3				2	1		15	1				
Locksmiths				1	10	4	32	1	1	2			2	168	8	6	5	2	4
Machinists	5	4	2	2	55	12	32	2	4	4	1	1	1	132	7	15	3		4
Mariners	20	4	5		213	11	48		2	225	11	5	9	142	3	26	5	2	58
Masons	1	1	16	2	92	41	109	2	8	23	2		16	384	31	33	13	4	12

TABLE XI.—IMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES OF INTENDED FUTURE RESIDENCE AND OCCUPATIONS—Continued.

Occupation.	Ala.	Alaska.	Ariz.	Ark.	Cal.	Colo.	Conn.	Del.	D. C.	Fla.	Ga.	Hawaii.	Idaho.	Ill.	Ind.	Iowa.	Kans.	Ky.	La.
SKILLED—continued.																			
Mechanics (not specified)	3	1	2		21	2	24	2	4	18	2	2	2	55	3	5	2	2	3
Metal workers (other than iron, steel, and tin)			1	1	13	1	15							30	5	3	3	1	3
Millers			1	1	6	1	14	1	1	1				46	5	8	5		2
Milliners			1		14	2	9				2			49	2	2			2
Miners	19	24	267	13	197	195	40	1	5	3	1		66	803	143	138	174	5	4
Painters and glaziers	2	1	2		60	8	47	1	4	13		1	3	186	6	29	8	4	3
Pattern makers					2		2							7	1		1		
Photographers	1				10	2	4		1	2	1	1		12	2	1			3
Plasterers					11	5	8		3				1	55	1		2	1	3
Plumbers		1	1		23	4	8	1		2	1			42	1	2	3		
Printers	1		1	1	17	4	9		1	4		1	2	34	4	4	1		1
Saddlers and harness makers			2		3	1	6			1				32	2	3			2
Seamstresses	2		3	1	38	8	75	4	7	61		1	2	246	7	20	1	8	6
Shipwrights					5	2	1		1	1									
Shoemakers	13	1	4	2	50	16	166	8	21	8	1		1	429	17	29	15	6	27
Stokers			6		19	4	22	1		1	1		1	33	5	4	1		
Stonecutters	1		1		19	6	14		1				5	87	6	4	2		
Tailors	5		4	3	98	14	192	11	23	25	10	1	3	890	19	35	3	4	13
Tanners and curriers					6		4	1			2	1	1	39		4			
Textile workers (not specified)					1		18		1					8	1	1			
Tinners			1		9		4	1	2	1				43	4	3	2	1	
Tobacco workers					7		2			1,318				22	1	3			
Upholsterers					2	1	3	1						7			2		1
Watch and clock makers	2	2		1	5		9		2					45		3	1		
Weavers and spinners			2		26	4	163	2	1	2	2		1	76	15	10	3	4	3
Wheelwrights	1	1		1	3		2	1	1					44	1	7	1	2	1
Wood workers (not specified)		1		1	7	6	4							28	1	2	1	1	
Other skilled	2	3	3	4	135	10	41	4	2	19	5	2	3	171	5	17	9	2	13
Total skilled	113	68	417	56	2,247	542	1,756	80	163	2,174	82	60	186	7,168	475	747	373	79	291
MISCELLANEOUS.																			
Agents			1	1	41	5	8		3	5	3	1	1	44		11	3		2
Bankers		1			15	1	1	2	1	2	1	4		5			1		2
Draymen, hackmen, and teamsters		2	2		14	4	13		3	9			3	56	2	8			2
Farm laborers	112	37	52	31	1,726	617	5,713	250	166	906	17	543	134	15,544	1,940	728	464	63	258
Farmers	10	3	26	3	499	125	222	15	13	31	12	27	51	880	117	346	89	11	25

Fishermen	......	3	......	1	30	2	7	1	......	4	......	7	8	20	2	18	1	......	23
Hotel keepers	......	......	1	......	24	......	1	......	1	......	......	2	2	15	1	2	1	......	......
Laborers	262	230	635	36	3,544	1,060	4,202	219	273	349	64	10	307	14,203	1,468	941	446	70	298
Manufacturers	......	......	1	......	6	......	5	......	2	3	1	1	2	19	1	1	......	......	1
Merchants and dealers	26	7	23	7	984	45	85	3	23	113	31	25	7	511	36	53	22	24	79
Servants	34	13	52	15	1,538	301	2,851	123	163	108	44	18	81	7,603	396	637	242	34	89
Other miscellaneous	9	3	15	2	629	18	108	2	16	199	7	28	14	291	30	43	20	9	56
Total miscellaneous	453	299	808	96	9,050	2,178	13,306	615	664	1,729	180	666	610	39,200	3,993	2,788	1,289	211	835
No occupation (including women and children)	250	36	640	146	5,912	1,509	5,388	258	488	1,297	202	1,120	246	16,488	1,528	1,972	1,392	214	666
Grand total	827	406	1,896	302	17,912	4,285	20,542	962	1,452	5,273	479	1,932	1,056	63,379	6,030	5,571	3,081	516	1,839

TABLE XI.—IMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES OF INTENDED FUTURE RESIDENCE AND OCCUPATIONS—Continued.

Occupation.	Me.	Md.	Mass.	Mich.	Minn.	Miss.	Mo.	Mont.	Nebr.	Nev.	N. H.	N. J.	N. Mex.	N. Y.	N. C.	N. Dak.	Ohio.
PROFESSIONAL.																	
Actors	......	1	10	4	1	......	5	......	......	......	......	5	......	469	......	......	2
Architects	......	3	12	2	1	......	3	3	1	1	1	8	1	62	......	......	5
Clergy	7	5	64	46	17	1	19	......	7	1	3	32	1	89	......	9	18
Editors	......	......	6	1	1	......	......	......	......	1	......	2	......	86	1	......	1
Electricians	3	3	35	24	10	......	2	......	4	1	1	17	......	124	1	1	17
Engineers (professional)	1	5	57	34	20	......	14	5	6	3	2	73	6	645	2	5	27
Lawyers	......	......	7	1	1	......	......	......	1	......	......	4	......	100	......	......	4
Literary and scientific persons	......	......	16	10	3	1	4	2	......	......	1	11	......	207	3	......	9
Musicians	2	10	47	12	8	......	2	......	4	......	3	27	......	327	1	......	21
Officials (government)	......	3	3	1	......	......	4	......	......	......	......	5	1	130	......	......	1
Physicians	2	9	9	17	1	......	3	1	......	......	1	5	......	131	......	3	6
Sculptors and artists	......	2	19	7	1	......	1	......	......	......	......	12	......	180	......	......	13
Teachers	7	5	117	27	13	1	5	2	6	......	9	37	......	592	1	7	25
Other professional	2	13	43	31	14	3	12	4	5	2	4	44	......	161	4	5	24
Total professional	24	59	445	217	91	6	74	17	34	9	25	282	9	3,303	13	30	173
SKILLED.																	
Bakers	6	17	138	63	45	2	32	12	18	2	9	138	......	783	......	13	59
Barbers and hairdressers	5	15	175	36	7	2	33	2	8	......	10	103	2	649	......	9	49
Blacksmiths	10	18	192	105	92	1	24	19	20	3	16	144	......	768	2	25	108
Bookbinders	......	4	15	7	1	......	5	......	1	......	......	16	......	145	......	2	6
Brewers	......	1	3	3	3	......	8	2	3	......	......	10	......	54	......	2	8
Butchers	6	23	106	63	27	......	27	11	16	2	7	114	......	655	1	14	58
Cabinetmakers	1	2	27	31	13	......	3	1	5	......	......	16	......	161	......	1	11
Carpenters and joiners	51	64	710	337	265	2	93	50	86	9	67	505	3	2,713	2	60	226
Clerks and accountants	27	57	585	292	181	1	90	32	29	4	31	322	15	2,884	3	42	166
Dressmakers	10	15	319	70	49	1	37	12	28	4	4	207	4	1,775	......	6	88
Engineers (locomotive, marine, and stationary)	6	6	70	34	27	1	12	10	2	......	4	47	1	162	......	5	30
Engravers	......	......	6	4	3	......	1	......	......	......	1	5	......	47	......	......	......
Furriers and fur workers	......	1	18	2	5	......	2	......	1	......	......	5	......	259	......	......	7
Gardeners	1	3	68	41	20	1	24	11	5	1	5	41	1	260	6	6	35
Hat and cap makers	......	4	15	1	7	......	4	......	1	......	1	13	1	169	......	......	6
Iron and steel workers	17	7	186	95	43	......	18	7	5	2	19	95	3	271	1	1	67
Jewelers	......	......	16	5	4	......	1	1	2	......	1	7	......	93	......	1	......
Locksmiths	1	19	60	23	8	......	20	3	16	1	4	103	......	386	......	1	62
Machinists	8	9	199	159	55	......	12	8	7	......	13	83	1	475	1	10	53
Mariners	3	26	254	62	55	6	37	8	5	5	2	140	......	1,673	4	16	34
Masons	17	26	273	123	88	......	62	34	30	7	12	233	3	971	......	19	163
Mechanics (not specified)	2	3	71	32	15	1	8	5	2	1	1	50	1	115	......	2	13
Metal workers (other than iron, steel, and tin)	1	6	51	18	4	......	4	......	......	......	2	24	......	158	1	1	15

Millers	1	7	8	12	14	...	7	2	4	...	3	24	...	104	1	4	24
Milliners	5	2	24	17	5	...	9	...	1	...	3	16	...	168	...	2	13
Miners	7	23	162	560	110	3	84	248	7	22	5	97	28	448	...	16	220
Painters and glaziers	6	14	204	90	59	...	19	4	14	1	13	126	...	735	1	8	66
Pattern makers	...	...	20	12	2	...	...	...	...	...	...	10	...	41	...	...	9
Photographers	3	1	13	10	2	...	2	...	2	...	...	10	...	64	...	1	8
Plasterers	...	...	41	22	5	...	4	2	...	...	2	31	...	194	...	2	13
Plumbers	2	2	59	26	13	1	2	1	1	...	3	25	...	119	...	5	12
Printers	1	1	34	18	6	...	11	3	2	...	1	21	...	214	...	6	12
Saddlers and harness makers	...	2	21	8	15	...	2	1	2	...	1	9	...	135	...	1	8
Seamstresses	12	34	246	45	39	1	16	5	22	...	13	164	...	1,387	3	13	79
Shipwrights	1	1	6	1	...	...	...	...	...	...	...	5	...	18	...	...	4
Shoemakers	12	52	661	100	73	1	80	8	53	...	21	288	1	2,199	1	14	157
Stokers	7	4	49	23	19	1	3	6	2	...	4	17	1	300	...	4	14
Stonecutters	17	4	181	32	30	1	7	13	1	1	31	42	1	334	11	4	27
Tailors	20	140	791	125	124	2	130	8	49	2	21	432	1	5,651	1	19	226
Tanners and curriers	...	2	18	3	2	...	5	...	2	...	1	17	...	107	...	2	7
Textile workers (not specified)	21	...	357	8	1	...	1	...	...	...	16	17	...	39	...	...	6
Tinners	5	6	37	20	8	...	7	...	5	...	2	20	...	151	...	2	12
Tobacco workers	1	...	63	12	6	...	4	1	...	...	8	8	...	155	...	...	5
Upholsterers	1	...	7	10	3	...	3	...	...	...	1	5	...	73	1	...	4
Watch and clock makers	...	3	14	5	7	...	6	...	3	...	1	22	...	145	1	2	10
Weavers and spinners	79	9	1,114	29	21	...	18	3	7	1	314	328	...	364	...	2	32
Wheelwrights	3	2	19	16	3	...	4	...	6	...	1	19	...	51	...	4	27
Wood workers (not specified)	1	5	27	19	4	...	...	3	5	...	2	16	...	238	...	1	9
Other skilled	16	20	181	125	50	1	24	10	6	3	13	108	2	262	1	10	58
Total skilled	393	660	7,914	2,954	1,638	29	1,005	546	484	71	689	4,298	69	29,322	42	358	2,326
MISCELLANEOUS.																	
Agents	3	3	32	29	9	3	6	3	2	1	2	24	...	257	...	3	8
Bankers	...	1	8	2	2	...	...	...	...	...	...	3	...	146	1	1	1
Draymen, hackmen, and teamsters	3	2	56	25	14	...	8	8	11	...	5	30	...	134	...	8	15
Farm laborers	497	1,073	10,401	3,620	2,170	33	1,764	472	638	140	573	11,234	94	44,767	21	847	10,177
Farmers	47	42	481	357	435	3	100	166	138	36	79	261	18	1,334	3	280	264
Fishermen	13	6	84	20	62	5	12	27	1	...	...	7	...	104	...	34	3
Hotel keepers	1	1	10	9	4	1	4	...	1	...	3	14	...	55	...	...	2
Laborers	1,288	501	16,341	6,128	5,654	40	2,567	835	634	201	2,060	8,058	195	48,773	31	1,019	6,173
Manufacturers	...	2	19	6	1	...	1	...	...	...	1	24	...	314	1	...	4
Merchants and dealers	11	61	392	111	67	12	101	17	34	6	9	258	8	4,124	8	36	137
Servants	355	418	9,176	1,969	1,762	10	683	297	411	49	515	5,378	38	11,942	9	610	2,297
Other miscellaneous	25	14	545	140	72	4	45	29	22	2	36	206	7	461	5	12	107
Total miscellaneous	2,243	2,124	37,545	12,416	10,252	111	5,291	1,854	1,892	435	3,283	25,497	360	112,411	79	2,850	19,188
No occupation (including women and children)	1,133	1,234	15,293	6,048	3,213	173	3,125	898	1,137	144	2,044	11,830	241	75,829	133	1,906	8,251
Grand total	3,793	4,077	61,197	21,635	15,194	319	9,495	3,315	3,547	659	6,041	41,907	679	220,865	267	5,144	29,938

TABLE XI.—IMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES OF INTENDED FUTURE RESIDENCE AND OCCUPATIONS—Continued.

Occupation.	Okla.	Oreg.	Pa.	P.I.	P.R.	R.I.	S.C.	S.Dak.	Tenn.	Tex.	Utah.	Vt.	Va.	Wash.	W.Va.	Wis.	Wyo.	Total.
PROFESSIONAL.																		
Actors	......	......	17	....	31	1	......	......	......	17	......	......	1	9	......	1	......	674
Architects	1	......	16	....	2	3	......	......	......	6	1	1	3	5	1	......	......	190
Clergy	3	5	96	....	14	5	......	4	......	17	6	3	4	24	......	12	2	771
Editors	......	1	5	....	......	......	......	......	......	......	1	......	......	1	......	......	......	131
Electricians	1	5	26	....	......	4	......	1	......	14	2	2	......	35	......	3	......	432
Engineers (professional)	7	2	110	....	9	10	2	5	3	12	3	......	4	40	3	8	3	1,397
Lawyers	......	......	5	....	4	......	......	......	1	2	......	......	2	4	......	......	1	170
Literary and scientific persons	......	2	15	....	......	2	......	1	1	2	3	......	......	5	......	3	......	353
Musicians	......	......	62	....	2	3	......	3	......	33	4	3	2	21	1	3	......	714
Officials (government)	......	2	5	....	7	2	......	......	1	1	......	......	2	4	......	1	......	253
Physicians	1	2	19	....	8	......	1	1	......	5	1	......	1	7	......	2	......	332
Sculptors and artists	......	......	25	....	1	1	......	2	......	11	1	3	......	6	1	3	......	355
Teachers	1	8	81	....	14	12	......	3	3	25	4	5	3	36	1	11	......	1,243
Other professional	3	7	84	....	9	1	4	2	2	12	3	2	7	23	5	11	2	1,071
Total professional	17	34	566	....	101	44	7	22	11	157	29	19	29	220	12	58	8	8,086
SKILLED.																		
Bakers	5	10	163	....	3	16	......	12	......	77	10	9	2	40	5	49	3	2,127
Barbers and hairdressers	2	6	205	....	2	27	......	1	......	24	3	4	5	16	2	12	......	1,682
Blacksmiths	2	12	324	....	7	24	......	19	1	59	14	13	3	81	11	57	6	2,681
Bookbinders	......	......	22	....	......	3	......	......	......	......	1	......	......	3	......	4	1	269
Brewers	1	1	7	....	1	......	......	1	1	4	......	......	......	1	......	6	......	151
Butchers	3	7	156	....	3	9	1	7	......	33	5	4	......	47	5	36	1	1,804
Cabinetmakers	1	2	25	....	......	1	......	1	......	1	6	......	2	14	1	7	1	397
Carpenters and joiners	7	67	655	....	19	139	1	39	5	202	38	23	11	292	30	164	14	8,606
Clerks and accountants	10	58	496	....	80	77	3	22	15	144	62	17	16	231	16	84	14	7,825
Dressmakers	3	13	317	....	......	42	1	6	1	20	33	9	4	55	6	36	2	3,757
Engineers (locomotive, marine, and stationary)	1	7	95	....	6	7	2	3	......	14	8	8	3	53	2	14	1	826
Engravers	......	......	5	....	......	1	......	......	1	......	......	......	......	3	......	2	......	94
Furriers and fur workers	......	......	23	....	......	2	......	1	1	......	......	......	......	2	......	1	......	359
Gardeners	2	10	82	....	......	5	......	7	5	9	2	4	5	28	6	26	2	929
Hat and cap makers	......	1	23	....	......	1	1	......	......	4	......	1	1	2	2	6	......	299
Iron and steel workers	1	8	135	....	1	34	......	3	......	18	11	8	3	51	6	12	3	1,354
Jewelers	......	......	9	....	1	7	......	......	......	3	2	2	......	5	1	......	......	197
Locksmiths	3	6	161	....	......	10	1	5	1	26	8	1	2	7	4	38	......	1,226
Machinists	......	9	203	....	......	47	......	7	2	38	18	12	5	87	6	16	2	1,831
Mariners	1	44	172	....	8	33	1	14	......	16	3	5	10	214	62	53	8	3,763
Masons	6	14	554	....	7	36	11	11	2	92	18	31	12	100	44	65	6	3,860
Mechanics (not specified)	......	2	64	....	8	15	2	4	1	23	9	......	2	28	4	7	......	644
Metal workers (other than iron, steel, and tin)	......	2	31	....	2	13	......	......	1	8	2	2	7	10	......	5	......	444

Millers	1	2	43	...	...	3	...	3	...	6	3	...	2	6	...	14	1	391
Milliners	...	1	31	...	1	4	...	1	...	2	6	3	...	10	...	8	...	415
Miners	72	10	1,127	...	1	25	2	37	7	216	168	5	11	472	132	82	68	6,573
Painters and glaziers	3	7	152	...	2	23	...	10	1	37	7	5	1	61	5	32	2	2,086
Pattern makers	...	1	9	...	...	3	...	...	...	...	1	...	...	8	...	1	...	130
Photographers	2	3	17	...	1	4	...	1	...	6	4	1	...	5	...	2	...	202
Plasterers	...	4	25	...	...	1	...	2	1	4	3	2	...	27	...	2	...	477
Plumbers	...	6	35	...	...	15	...	...	1	7	6	4	...	35	...	3	1	473
Printers	...	5	32	...	4	4	...	1	2	13	4	2	...	19	1	9	...	511
Saddlers and harness makers	...	2	13	...	1	1	...	3	...	11	...	...	1	8	...	4	...	301
Seamstresses	1	9	184	...	14	34	...	6	3	32	11	4	7	14	7	16	1	2,912
Shipwrights	...	1	6	...	...	2	...	1	...	...	2	...	1	10	...	...	...	69
Shoemakers	2	6	660	...	6	103	1	13	7	79	10	14	11	29	51	62	3	5,592
Stokers	...	5	36	...	...	9	...	4	1	19	5	6	8	35	2	12	3	697
Stonecutters	4	5	104	...	...	15	...	4	1	6	5	186	1	44	5	73	1	1,337
Tailors	3	22	983	...	3	91	...	4	11	53	14	5	13	50	16	80	6	10,449
Tanners and curriers	...	...	21	...	3	1	...	1	...	7	...	1	...	2	2	12	...	274
Textile workers (not specified)	...	...	18	...	...	104	...	1	...	...	7	...	...	2	1	6	...	635
Tinners	...	1	47	...	2	2	...	4	1	10	2	2	...	4	2	13	...	436
Tobacco workers	...	1	23	...	1	2	1	1	...	4	1	1	2	5	...	8	...	1,666
Upholsterers	...	...	9	...	...	4	1	...	1	...	1	...	1	9	1	2	...	154
Watch and clock makers	...	3	24	...	1	2	...	2	...	2	1	...	1	2	...	1	...	328
Weavers and spinners	1	7	304	...	...	354	...	6	1	6	14	65	2	12	1	22	4	3,434
Wheelwrights	1	1	39	...	...	1	...	2	...	5	...	...	2	9	...	15	...	296
Wood workers (not specified)	...	2	21	...	1	6	...	1	...	5	1	...	...	8	...	4	...	431
Other skilled	3	11	120	...	11	24	2	5	3	81	15	12	8	77	11	42	1	1,766
Total skilled	141	394	8.010	...	200	1,386	31	276	78	1,426	544	471	165	2,333	450	1.225	155	87,160
MISCELLANEOUS.																		
Agents	...	7	38	1	11	8	1	1	4	13	3	2	1	34	1	2	1	642
Bankers	...	...	2	...	2	...	...	...	2	2	...	...	...	7	...	1	2	219
Draymen, hackmen, and teamsters	...	2	55	...	3	7	1	1	...	5	4	1	3	43	6	12	...	580
Farm laborers	195	332	42,606	...	22	1,443	12	413	62	871	362	493	235	1,070	2,509	2,657	206	171,310
Farmers	43	169	791	...	36	97	4	154	3	142	67	32	37	360	61	311	49	8,914
Fishermen	...	25	6	...	3	4	...	10	...	4	2	1	...	116	1	84	...	761
Hotel keepers	...	3	11	...	...	4	...	...	...	4	1	...	...	16	...	4	...	198
Laborers	125	731	25,558	...	33	1,776	22	429	67	6,058	748	638	207	4,002	1,941	2,906	354	174,800
Manufacturers	...	2	9	...	...	5	...	...	...	4	1	...	2	6	...	...	...	445
Merchants and dealers	8	36	521	...	83	43	8	18	20	164	17	7	20	106	13	76	7	8,643
Servants	62	265	9,387	...	25	980	24	370	25	467	166	184	82	917	227	1,032	94	64,568
Other miscellaneous	7	43	261	...	34	83	2	18	1	123	27	17	19	230	10	50	11	4,167
Total miscellaneous	440	1.615	79,245	1	252	4,450	74	1,414	184	7,857	1,398	1,375	606	6,907	4,769	7.135	724	435,247
No occupation (including women and children)	525	1,101	24.581	2	411	3,270	111	1.013	215	8,016	781	749	499	2,758	1,210	3,431	236	221,293
Grand total	1,123	3.144	112,402	3	964	9,150	223	2,725	488	17,456	2,752	2,614	1,299	12,218	6,441	11.849	1,123	751,786

TABLE XI A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES OF LAST PERMANENT RESIDENCE AND OCCUPATIONS.

Occupation.	Ala.	Alaska.	Ariz.	Ark.	Cal.	Colo.	Conn.	Del.	D. C.	Fla.	Ga.	Hawaii.	Idaho.	Ill.	Ind.	Iowa.	Kans.	Ky.	La.
PROFESSIONAL.																			
Actors					5					23									
Architects					8		2							1					
Clergy	2	3	1		14		7		1	1	1	6		10		1	3	3	7
Editors					4					1				1					
Electricians					18		1			2	1	2	1	11					
Engineers (professional)					20	1	1		3			1		12					1
Lawyers					3				2										
Literary and scientific persons					1									2					
Musicians					6		2			3				26					
Officials (government)					7		1		7										1
Physicians					18		1		1	1		2		7				1	
Sculptors and artists					11	1			1			1		5	1				
Teachers				1	17	3	1		4	1		3		18	3				
Other professional					95	1	3		6	18	1	9		14	1				2
Total professional	2	3	1	1	227	6	19		25	50	3	24	1	107	5	1	3	4	11
SKILLED.																			
Bakers	1				28	2	7		3	6		1		34		1			6
Barbers and hairdressers	1				7	3	16		2	11		1		42	1				3
Blacksmiths					10	3	6							43	4	2			
Bookbinders														4					
Brewers					1			1						3	2				
Butchers		1			12	2	6	1	2	1				47		1	1		7
Cabinetmakers					4									10	1				
Carpenters and joiners		1	1		122	11	17		2	17		6		133	8	7	1	3	7
Clerks and accountants	1	1			97	8	12		5	32	4	7	1	94	1	1		1	10
Dressmakers					11	1	6		6	3		2	1	32	1	1	3		1
Engineers (locomotive, marine, and stationary)				1	32	1	7		2			3		20					6
Engravers														1					
Furriers and fur workers														2					
Gardeners			1		18		4			2			1	10			1		4
Hat and cap makers							1							3					
Iron and steel workers	1				9	1	5					1		25	2		1		2
Jewelers					3									3					
Locksmiths					3									8					
Machinists					19	3	14	2	1	2				51	1		1	2	2
Mariners	1				72		3			62				15	2	1			8
Masons				1	82	1	21		1	2			1	52	2	1		1	3
Mechanics (not specified)					12	3	8			5	1	2		19	3				1
Metal workers (other than iron, steel, and tin)	1				3		2					1		5	1				

Millers							1							5					
Milliners					1									4					
Miners	29	17	47	11	271	287	40		5	2		5	39	537	53	48	66	33	17
Painters and glaziers					17	3	4			4		2		30	1	2			1
Pattern makers																			
Photographers					2		1									1			
Plasterers					18									3					
Plumbers					8	1	8							7	1	1			
Printers					3									5					
Saddlers and harness makers							1							3					
Seamstresses					1		14			18				9					
Shipwrights							2												
Shoemakers	1				10	4	12		5	1				64	1	1			3
Stokers					10	1	1			4				11	4	4			1
Stonecutters	15		2	1	5				1					11					
Tailors	3		1		28	5	12	2	4	2		6		130	2	2	1	5	
Tanners and curriers					1									4			7		
Textile workers (not specified)							2												1
Tinners					2		1					1		7					
Tobacco workers							1			521				5					
Upholsterers							2							2		1			
Watch and clock makers				1	2		4		1					7	1				
Weavers and spinners					2		11							3		1	1		
Wheelwrights														1					
Wood workers (not specified)							1							7	2				
Other skilled	2			1	234	2	16		2	6		3	1	36			1		3
Total skilled	56	20	52	16	1,160	342	264	6	42	701	5	41	44	1,547	94	76	84	45	86
MISCELLANEOUS.																			
Agents					9						1	1		3					2
Bankers					4							1		2					
Draymen, hackmen, and teamsters					5		4			3		1	1	15			1		
Farm laborers		1			510	45	11			257		945	12	156	80	4	5	11	43
Farmers	4		1	1	726	26	36	2	5	8		9	13	304	31	33	20	7	19
Fishermen		1			9			1						1					1
Hotel keepers					15	1	1			1			1	4		1		1	
Laborers	105	33	60	24	4,443	680	2,395	132	116	250	57	436	113	9,033	761	147	147	72	187
Manufacturers					1		3			8				3		1			2
Merchants and dealers	13	6	2	7	1,012	17	36	3	11	88	16	33		164	16	5	6	6	27
Servants	2		6	1	284	33	200	20	23	31	3	18	1	739	43	13	18	8	18
Other miscellaneous	3	8	2	1	220	19	31		2	91		18	13	148	4	5	2	8	15
Total miscellaneous	127	49	71	34	7,238	821	2,717	158	157	737	77	1,462	154	10,572	935	209	199	113	314
No occupation (including women and children)	71	7	19	10	1,159	179	685	27	66	579	9	459	14	2,259	131	48	93	35	121
Grand total	256	79	143	61	9,784	1,348	3,685	191	290	2,067	94	1,986	213	14,485	1,165	334	379	197	532

TABLE XI A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES OF LAST PERMANENT RESIDENCE AND OCCUPATIONS—Continued.

Occupation.	Me.	Md.	Mass.	Mich.	Minn.	Miss.	Mo.	Mont.	Nebr.	Nev.	N. H.	N. J.	N. Mex.	N. Y.	N. C.	N. Dak.	Ohio.
PROFESSIONAL.																	
Actors							1							50			
Architects			3		1							1		23			1
Clergy	2		9	1	3		3		1	1		7	2	48	1		
Editors			2											7			1
Electricians	1	1	2				2		1			2		37			1
Engineers (professional)		1	5	2	2	1	1	2		1		2	2	90	1		5
Lawyers			2	1	1		1							8			
Literary and scientific persons				1								4		20			
Musicians	1	1	5	1	3	1			2			6		78		1	4
Officials (government)			1			1						1		20			1
Physicians		4	6	2			1					1	1	49			4
Sculptors and artists			4		3		1					1	2	77			1
Teachers	1	5	26	4	2	2	1		1			9		126			8
Other professional		9	7	4	1	2	2	1	2	1		9		148			4
Total professional	5	21	72	16	16	7	13	3	7	3		43	7	781	2	1	30
SKILLED.																	
Bakers		6	20	3		1	8				1	29		198			14
Barbers and hairdressers		6	39	5	5		6					31		343		1	15
Blacksmiths		7	28	7	4		3		4			24	1	116		1	20
Bookbinders			2											15			
Brewers		1					2					3		22			4
Butchers		7	12	4	6		11	1	1	1		18		171	1	2	23
Cabinetmakers		6	1	6	3		2					4		27			7
Carpenters and joiners	1	10	93	17	15	3	21	4	3	2	1	84	1	541		2	60
Clerks and accountants	5	10	78	10	11	1	21	2	3		2	49		818			20
Dressmakers		3	40	4	4		1	1	1		1	11	1	281			18
Engineers (locomotive, marine, and stationary)	1	2	17	3	1	2	1		2			14		128			13
Engravers												2		2			
Furriers and fur workers			1											26			1
Gardeners		2	14			1	1	1				10		44			5
Hat and cap makers		1	2									10		24			
Iron and steel workers			16	2	1		1	1	1		1	12		36			10
Jewelers		1	4	1	1							2		35			
Locksmiths		2	1	3			1							6			1
Machinists		4	34	11	2		3		1		2	26		144	1		21
Mariners	1	6	45	2	6		3	1	1			7		170	1	1	8
Masons	3	5	64	10	4	1	5	2		1		20		151			19
Mechanics (not specified)		1	13	5	5	1	8		1			16		77			8
Metal workers (other than iron, steel, and tin)		2	1						1					16			1

Millers	1		2		1									8			
Milliners			5									1		39			
Miners	7	19	107	304	173	4	96	66	21	27	4	80	80	397	1	5	553
Painters and glaziers		4	25	5	2	1	5	1	1			13		173		1	6
Pattern makers												2					
Photographers			1	1								2		24			1
Plasterers					1		1					4		28			5
Plumbers	1		6	2	1		2		1			2		32			2
Printers		1	2		1				1			3		45			1
Saddlers and harness makers			1	1	2									9			
Seamstresses		2	34		1						5	8		76			4
Shipwrights			2											1			
Shoemakers	2	16	76	4	2		11	1	1		5	47		297		2	18
Stokers		1	12	4	2		1		1			15		422			6
Stonecutters			17		2			1	1	5	3	4	1	39			9
Tailors	1	47	63	9	4	1	14			1	4	50		1,273	1		32
Tanners and curriers				1	1							2		10			
Textile workers (not specified)	3		144								4	49		4			
Tinners	1			3								5		24			4
Tobacco workers			12	1			1					32		82			4
Upholsterers			3									1		9			
Watch and clock makers			3		1							2		19			2
Weavers and spinners	3		70	1							5	17		50			2
Wheelwrights		2					1							2			
Wood workers (not specified)				1										4	1		1
Other skilled	1	13	90	6	4		5		1	3	7	100		203			25
Total skilled	31	187	1,200	436	266	16	235	82	47	40	45	811	34	6.661	6	15	938
MISCELLANEOUS.																	
Agents			7	1		1	1					4		36			
Bankers			1									2		9			1
Draymen, hackmen, and teamsters			20	2	7		5					7		95			3
Farm laborers	2	31	26	19	9		181	16	7	1	1	28		309		1	43
Farmers	6	16	136	67	83	4	50	18	30	9	4	37	1	310	2	36	126
Fishermen	1		35											37		1	
Hotel keepers			3		3		2	3		1		1		80			2
Laborers	346	708	7,935	1,516	1,011	50	1,400	391	190	117	237	5,877	37	45,105	29	86	4,552
Manufacturers			3		1		1					4		55			2
Merchants and dealers	5	17	153	18	13	8	44	5	6	4	3	77	1	1,607	8	2	50
Servants	8	72	666	99	62	7	113	10	19	5	18	728	3	4,543	1	6	354
Other miscellaneous		9	126	15	28	1	21	12	5	5	3	80	1	815	1	4	36
Total miscellaneous	368	853	9,111	1,737	1,217	71	1,818	455	257	142	266	6,845	43	53,001	41	136	5,169
No occupation (including women and children)	37	304	2,152	418	198	21	351	48	63	21	64	1,833	9	10,962	16	25	1,112
Grand total	441	1,365	12,535	2,607	1,697	115	2,417	588	374	206	375	9,532	93	71,405	65	177	7,249

TABLE XI A.—EMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES OF LAST PERMANENT RESIDENCE AND OCCUPATIONS—Continued.

Occupation.	Okla.	Oreg.	Pa.	P.I.	P. R.	R. I.	S. C.	S. Dak.	Tenn.	Tex.	Utah.	Vt.	Va.	Wash.	W. Va.	Wis.	Wyo	Unknown.	Total.
PROFESSIONAL.																			
Actors			5		32									3					119
Architects		1	2										1			1			45
Clergy	2		15		14	1			1	5		1	1	7	2	1			188
Editors		1								1				2					20
Electricians			8							1		1	1	2					96
Engineers (professional)	1		11		2	3				1				1					173
Lawyers					5									1					24
Literary and scientific persons														1		1			30
Musicians		1	16			1								1	2				161
Officials (government)		1	1		3		2							1					48
Physicians			8		4					1			1	3		1			117
Sculptors and artists			10		1					1					2	2			125
Teachers			29		4	5		1		2			1	3		4			285
Other professional	1		22		5	1	1			2					2	1			375
Total professional	4	4	127		70	11	3	1	1	14		2	5	25	8	11			1,806
SKILLED.																			
Bakers			51		5	3				1				6		4	1		440
Barbers and hairdressers		1	114		1	2				4			3	5	2	4			674
Blacksmiths		1	61			4				5				3		10			367
Bookbinders	1		1																23
Brewers		1	2							1						1			44
Butchers		1	49		1					3	1			3		5			402
Cabinetmakers		1	8			1					1			2					84
Carpenters and joiners		6	200		5	3		3		9	3		3	26		25	1		1,478
Clerks and accountants	1	8	136		26	6	2	1	3	8	1	1	2	10	1	8			1,519
Dressmakers		2	30			1	2			1	1			2		1			474
Engineers (locomotive, marine, and stationary)	1	2	44	1	6	4				2		2		4		4			326
Engravers							1												6
Furriers and fur workers																			30
Gardeners		3	21			1		1		1		1	3	3	2	3			158
Hat and cap makers			7																48
Iron and steel workers			21							3				3		3			158
Jewelers			1			3													54
Locksmiths			4									1		1					31
Machinists			75			3				1	1		1	4	1	10			443
Mariners		6	38		23	13			1	8	1		5	16	1	4			532
Masons		2	93		9	5				1	3	4	2	8	4	4			588
Mechanics (not specified)			32		6	2				2				1		3			230
Metal workers (other than iron, steel, and tin)			7													1			42
Millers	1		2							1					6	1			29
Milliners			5		1														56

Miners	23	19	3,243			6	8	33	20	18	60	1	23	125	162	119	24		7,285
Painters and glaziers	1	6	31							1	1			3	1	5			350
Pattern makers			3																5
Photographers			3		2					1				4	1				44
Plasterers			1			4			1										66
Plumbers		1	5			1				1				1	1				80
Printers			5		1											1			69
Saddlers and harness makers			1																18
Seamstresses			7		4	8						1				2	1		195
Shipwrights																			5
Shoemakers			104		4	3			1	4		1	3	3	2	7			716
Stokers			32		1								1	3		3			540
Stonecutters		1	14							1		12	2	1		4	1		153
Tailors		5	176		5	8			3	10			3	8	3	15			1,939
Tanners and curriers																8			34
Textile workers (not specified)			2			7													216
Tinners			1		5									1					55
Tobacco workers			20		5					1						1			686
Upholsterers																			18
Watch and clock makers			5		1	1									2	1			53
Weavers and spinners			21			19								1					207
Wheelwrights			2																8
Wood workers (not specified)		1	3		1	1										2			25
Other skilled	2	2	85		6	2		1	1	7	1		2	1	37	4			916
Total skilled	30	69	4,766	1	118	111	13	39	30	95	74	24	53	248	226	263	28		21,919
MISCELLANEOUS.																			
Agents			3		2	1				1				2			1		76
Bankers																			20
Draymen, hackmen, and teamsters			22			1						1			1		2		196
Farm laborers		42	112		3	7	5		2	5	4		1	34	3	2	6		2,980
Farmers	8	29	473		37	8	1	17	2	45	5	1	4	80	9	67	4		2,970
Fishermen		5				2				1				3		1			99
Hotel keepers		10	4		1								2	11		2			150
Laborers	36	398	24,070	1	14	769	36	92	79	302	261	218	277	1,170	1,113	1,225	97		118,936
Manufacturers		1	2													1			88
Merchants and dealers	3	29	232		149	17	2		7	39	3	9	18	63	11	14	5		4,090
Servants	2	20	1,642		13	85	1	3	1	19	7	18	12	45	31	83	2		10,159
Other miscellaneous		23	168		21	9		4	1	5	3	2	6	75	17	21	1		2,108
Total miscellaneous	49	557	26,728	1	240	899	45	116	92	417	283	249	320	1,483	1,185	1,416	118		141,872
No occupation (including women and children)	19	67	5,351	1	228	235	7	31	18	147	25	56	71	168	138	324	6		30,497
Occupations and United States residences unknown; left United States via Canadian border; reported by Canadian government																		29,708	29,708
Grand total	102	697	36,972	3	656	1,256	68	187	141	673	382	331	449	1,924	1,557	2,014	152	29,708	225,802

TABLE XII.—IMMIGRANT ALIENS ADMITTED DURING SPECIFIED PERIODS, JANUARY 1, 1908, TO JUNE 30, 1909, BY RACES OR PEOPLES AND SEX.

Race or people.	Year ended June 30, 1909.			6 months ended June 30, 1909.			6 months ended Dec. 31, 1908.			Year ended Dec. 31, 1908.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
African (black)	2,601	1,706	4,307	1,552	894	2,446	1,049	812	1,861	2,736	1,661	4,397
Armenian	2,595	513	3,108	1,642	124	1,766	953	389	1,342	1,519	724	2,243
Bohemian and Moravian	3,998	2,852	6,850	2,734	1,576	4,310	1,264	1,276	2,540	2,252	2,331	4,583
Bulgarian, Servian, and Montenegrin	5,756	458	6,214	4,530	248	4,778	1,226	210	1,436	2,314	354	2,668
Chinese	1,706	135	1,841	825	63	888	881	72	953	1,552	110	1,662
Croatian and Slovenian	15,710	4,471	20,181	12,758	2,884	15,642	2,952	1,587	4,539	4,361	2,378	6,739
Cuban	2,322	1,058	3,380	1,081	513	1,594	1,241	545	1,786	2,166	1,039	3,205
Dalmatian, Bosnian, and Herzegovinian	1,617	271	1,888	1,229	129	1,358	388	142	530	853	227	1,080
Dutch and Flemish	5,131	2,983	8,114	3,754	1,912	5,666	1,377	1,071	2,448	3,423	2,448	5,871
East Indian	327	10	337	126	5	131	201	5	206	455	7	462
English	23,440	15,581	39,021	13,042	7,934	20,976	10,398	7,647	18,045	20,912	14,719	35,631
Finnish	7,832	3,855	11,687	6,497	2,679	9,176	1,335	1,176	2,511	1,874	1,801	3,675
French	10,735	8,688	19,423	6,639	5,329	11,968	4,096	3,359	7,455	6,668	5,171	11,839
German	33,919	24,615	58,534	21,599	13,400	34,999	12,320	11,215	23,535	23,501	20,248	43,749
Greek	18,738	1,524	20,262	15,532	939	16,471	3,206	585	3,791	6,334	1,019	7,353
Hebrew	31,057	26,494	57,551	16,946	12,132	29,078	14,111	14,362	28,473	28,578	26,708	55,286
Irish	15,785	15,400	31,185	10,481	8,339	18,820	5,304	7,061	12,365	12,036	14,599	26,635
Italian (north)	18,844	6,306	25,150	14,565	3,652	18,217	4,279	2,654	6,933	8,046	4,768	12,814
Italian (south)	135,080	30,168	165,248	118,451	21,730	140,181	16,629	8,438	25,067	32,236	16,739	48,975
Japanese	1,462	1,813	3,275	485	723	1,208	977	1,090	2,067	5,414	3,020	8,434
Korean	9	2	11	6	1	7	3	1	4	10	3	13
Lithuanian	10,284	4,970	15,254	8,248	3,211	11,459	2,036	1,759	3,795	3,504	2,802	6,306
Magyar	21,027	7,677	28,704	16,001	4,955	20,956	5,026	2,722	7,748	7,036	4,312	11,348
Mexican	10,111	5,480	15,591	6,191	3,217	9,408	3,920	2,263	6,183	5,689	3,186	8,875
Pacific Islander	3	4	7	1	3	4	2	1	3	2	1	3
Polish	50,597	26,968	77,565	42,512	20,010	62,522	8,085	6,958	15,043	13,647	11,192	24,839
Portuguese	2,886	1,720	4,606	2,296	1,215	3,511	590	505	1,095	1,882	1,283	3,165
Roumanian	7,036	1,005	8,041	5,816	736	6,552	1,220	269	1,489	1,795	386	2,181
Russian	8,794	1,244	10,038	6,925	772	7,697	1,869	472	2,341	4,753	965	5,718
Ruthenian (Russniak)	10,863	4,945	15,808	8,441	3,527	11,968	2,422	1,418	3,840	3,679	2,061	5,740
Scandinavian	22,232	12,764	34,996	17,207	6,964	24,171	5,025	5,800	10,825	11,535	10,373	21,908
Scotch	10,323	6,123	16,446	6,723	3,480	10,203	3,600	2,643	6,243	7,633	5,335	12,968
Slovak	16,168	6,418	22,586	12,895	4,530	17,425	3,273	1,888	5,161	4,690	3,179	7,869
Spanish	4,070	869	4,939	2,578	407	2,985	1,492	462	1,954	3,610	895	4,505
Spanish-American	604	286	890	333	142	475	271	144	415	567	287	854
Syrian	2,383	1,285	3,668	1,183	657	1,840	1,200	628	1,828	1,898	925	2,823
Turkish	781	39	820	609	14	623	172	25	197	568	42	610
Welsh	1,108	591	1,699	656	279	935	452	312	764	1,066	594	1,660
West Indian (except Cuban)	591	433	1,024	324	220	544	267	213	480	534	453	987
Other peoples	1,444	93	1,537	1,134	31	1,165	310	62	372	549	97	646
Total	519,969	231,817	751,786	394,547	139,576	534,123	125,422	92,241	217,663	241,877	168,442	410,319

TABLE XII A.—EMIGRANT ALIENS DEPARTED DURING SPECIFIED PERIODS, JANUARY 1, 1908, TO JUNE 30, 1909, BY RACES OR PEOPLES AND SEX.

Race or people.	Year ended June 30, 1909.				6 months ended June 30, 1909.				6 months ended Dec. 31, 1908.				Year ended Dec. 31, 1908.			
	Males.	Females.	Sex unknown.[a]	Total.	Males.	Females.	Sex unknown.[a]	Total.	Males.	Females.	Sex unknown.[a]	Total.	Males.	Females.	Sex unknown.[a]	Total.
African (black)	743	284	77	1,104	235	132	45	412	508	152	32	692	665	243	32	940
Armenian	490	51	20	561	184	17	14	215	306	34	6	346	404	37	6	447
Bohemian and Moravian	449	250	47	746	241	154	36	431	208	96	11	315	593	271	11	875
Bulg'n, Serv'n, Monteneg'n	2,235	77	110	2,422	580	35	109	724	1,655	42	1	1,698	4,528	110	1	4,639
Chinese	3,325	72	....	3,397	909	40	....	949	2,416	32	....	2,448	3,674	91	....	3,765
Croatian and Slovenian	7,861	1,120	33	9,014	2,408	399	15	2,822	5,453	721	18	6,192	19,519	1,801	18	21,338
Cuban	852	391	....	1,243	400	168	....	568	452	223	....	675	1,038	537	....	1,575
Dalmatian, Bosnian, Herz'n	477	38	....	515	77	8	....	85	400	30	....	430	772	60	....	832
Dutch and Flemish	527	200	176	903	223	96	116	435	304	104	60	468	744	227	60	1,031
East Indian	39	2	7	48	12	2	7	21	27	....	....	27	108	1	....	109
English	2,326	1,474	1,261	5,061	976	620	960	2,556	1,350	854	301	2,505	3,114	1,866	301	5,281
Finnish	787	270	370	1,427	277	115	237	629	510	155	133	798	1,876	503	133	2,512
French	1,543	1,094	225	2,862	757	578	148	1,483	786	516	77	1,379	1,834	1,178	77	3,089
German	6,299	3,817	3,425	13,541	2,634	1,876	2,011	6,521	3,665	1,941	1,414	7,020	9,477	4,482	1,414	15,373
Greek	5,744	179	352	6,275	1,916	78	273	2,267	3,828	101	79	4,008	7,600	213	79	7,892
Hebrew	4,122	1,737	246	6,105	1,731	727	121	2,579	2,391	1,010	125	3,526	5,959	2,060	125	8,144
Irish	732	846	481	2,059	308	396	340	1,044	424	450	141	1,015	1,072	983	141	2,196
Italian (north)	14,083	2,039	536	16,658	4,181	755	473	5,409	9,902	1,284	63	11,249	18,043	2,426	63	20,532
Italian (south)	59,035	8,648	2,098	69,781	9,732	1,827	1,824	13,383	49,303	6,821	274	56,398	107,027	15,118	274	122,419
Japanese	3,196	698	9	3,903	1,313	335	8	1,656	1,883	363	1	2,247	2,931	677	1	3,609
Korean	95	19	....	114	22	1	....	23	73	18	....	91	123	23	....	146
Lithuanian	1,547	443	....	1,990	767	228	....	995	780	215	....	995	2,424	545	....	2,969
Magyar	8,162	2,947	398	11,507	3,571	1,452	271	5,294	4,591	1,495	127	6,213	17,615	3,905	127	21,647
Mexican	108	50	....	158	49	13	....	62	59	37	....	96	111	66	....	177
Pacific Islander	4	....	....	4	2	....	....	2	2	....	....	2	5	4	....	9
Polish	14,514	4,405	371	19,290	5,381	1,703	220	7,304	9,133	2,702	151	11,986	31,248	7,321	151	38,720
Portuguese	563	252	1	816	225	122	1	348	338	130	....	468	584	255	....	839
Roumanian	1,106	141	105	1,352	491	67	75	633	615	74	30	719	2,923	220	30	3,173
Russian	3,380	732	1,013	5,125	1,264	246	749	2,259	2,116	486	264	2,866	6,031	1,125	264	7,420
Ruthenian (Russniak)	1,379	277	16	1,672	731	177	2	910	648	100	14	762	2,172	352	14	2,538
Scandinavian	1,905	1,201	4,151	7,257	581	513	2,670	3,764	1,324	688	1,481	3,493	3,126	1,605	1,481	6,212
Scotch	515	388	715	1,618	217	201	446	864	298	187	269	754	896	441	269	1,606
Slovak	6,749	2,112	33	8,894	3,073	1,005	30	4,108	3,676	1,107	3	4,786	14,398	3,270	3	17,671
Spanish	1,538	256	40	1,834	755	130	37	922	783	126	3	912	1,764	336	3	2,103
Spanish-American	220	85	....	305	132	41	....	173	88	44	....	132	209	85	....	294
Syrian	907	234	63	1,204	295	58	47	400	612	176	16	804	1,257	320	16	1,593
Turkish	673	25	27	725	293	12	22	327	380	13	5	398	1,057	36	5	1,098
Welsh	65	37	69	171	22	12	39	73	43	25	30	98	98	54	30	182
West Indian (except Cuban)	199	176	19	394	55	57	12	124	144	119	7	270	270	199	7	476
Other peoples	515	18	1,341	1,874	148	7	944	1,099	367	11	397	775	738	17	397	1,152
Not specified	....	....	11,873	11,873	....	....	7,070	7,070	....	....	4,803	4,803	....	....	4,803	4,803
Total	159,009	37,085	29,708	225,802	47,168	14,403	19,372	80,943	111,841	22,682	10,336	144,859	278,027	53,063	10,336	341,426

[a] Left United States via Canadian border. Reported by Canadian government.

TABLE XIII.—SEX, AGE, LITERACY, FINANCIAL CONDITION, ETC., OF NONIMMIGRANT

Race or people.	Sex.			Age.			Illiteracy, 14 years and over.			
	Male.	Female.	Total admitted.	Under 14 years.	14 to 44 years.	45 years and over.	Can read, but can not write.		Can neither read nor write.	
							Male.	Female.	Male.	Female.
African (black)	1,069	505	1,574	86	1,372	116	6	4	149	55
Armenian	230	8	238	4	220	14	......	......	65	1
Bohemian and Moravian (Czech)	459	295	754	42	625	87	......	1	5	1
Bulgarian, Servian, and Montenegrin	1,370	39	1,409	7	1,331	71	......	......	605	15
Chinese	5,071	102	5,173	218	4,150	805	......	......	270	38
Croatian and Slovenian	4,081	360	4,441	49	4,142	250	6	......	1,088	86
Cuban	2,177	786	2,963	333	2,295	335	......	1	24	24
Dalmatian, Bosnian, and Herzegovinian	308	9	317	13	283	21	1	......	97	......
Dutch and Flemish	1,658	474	2,132	115	1,762	255	......	......	22	7
East Indian	108	5	113	3	103	7	......	......	24	......
English	13,047	6,516	19,563	1,319	14,191	4,053	2	3	29	27
Finnish	2,053	661	2,714	41	2,588	85	1	2	19	2
French	3,206	1,943	5,149	258	3,981	910	......	1	39	16
German	9,393	5,390	14,783	861	12,000	1,922	3	6	200	121
Greek	2,106	85	2,191	42	2,047	102	2	......	282	22
Hebrew	2,065	1,123	3,188	332	2,529	327	1	3	202	208
Irish	3,812	5,549	9,361	126	8,249	986	5	7	43	45
Italian (north)	8,767	1,199	9,966	284	9,055	627	......	1	972	92
Italian (south)	43,750	3,859	47,609	1,035	43,256	3,318	17	2	19,851	1,750
Japanese	1,067	101	1,168	30	1,054	84	......	......	24	25
Korean	6	......	6	......	6	......	......	......	......	......
Lithuanian	823	229	1,052	31	984	37	21	4	238	114
Magyar	4,737	1,127	5,864	169	5,319	376	......	1	488	134
Mexican	1,925	997	2,922	406	2,129	387	27	16	612	423
Pacific Islander	14	7	21	4	16	1	......	......	7	6
Polish	6,846	1,965	8,811	346	8,009	456	76	48	1,927	552
Portuguese	711	300	1,011	42	833	136	......	2	409	158
Roumanian	1,027	86	1,113	27	1,014	72	......	......	303	25
Russian	645	110	755	48	652	55	2	1	200	25
Ruthenian (Russniak)	2,255	431	2,686	131	2,414	141	6	2	1,019	222
Scandinavian	8,352	4,768	13,120	201	11,968	951	6	5	4	2
Scotch	3,708	1,924	5,632	311	4,244	1,077	......	......	4	7
Slovak	5,232	996	6,228	145	5,780	303	15	5	877	177
Spanish	3,287	838	4,125	273	3,256	596	1	3	125	26
Spanish-American	1,048	456	1,504	170	1,115	219	......	......	37	11
Syrian	624	186	810	80	654	76	......	1	154	95
Turkish	97	8	105	4	92	9	......	......	21	2
Welsh	361	162	523	16	429	78	......	......	2	1
West Indian (other than Cuban)	582	402	984	116	711	157	......	......	8	4
Other peoples	359	12	371	3	358	10	......	......	173	......
Total	148,436	44,013	192,449	7,721	165,216	19,512	198	119	30,618	4,519

ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY RACES OR PEOPLES.

Money.			Have been in the United States before.	By whom passage was paid.			Going to join—		
Aliens bringing—		Total amount of money shown.		Self.	Relative.	Other than self or relative.	Relative.	Friend.	Neither relative nor friend.
$50 or over.	Less than $50.								
362	848	$47,690	1,222	1,267	223	84	894	177	503
50	164	11,112	147	231	5	2	142	25	71
206	404	52,188	711	609	129	16	533	160	61
187	1,165	47,746	1,213	1,369	34	6	497	749	163
1,839	2,579	244,995	1,998	4,438	430	305	490	374	4,309
461	3,696	113,992	4,355	4,194	238	9	2,197	1,819	425
1,197	583	123,105	2,410	2,221	655	87	1,392	174	1,397
69	225	11,878	311	308	7	2	165	74	78
1,073	591	169,923	1,629	1,739	353	40	998	411	723
74	13	9,679	58	92	6	15	16	4	93
12,592	2,944	1,563,616	13,425	14,752	3,387	1,424	7,232	1,841	10,490
623	1,726	123,222	2,588	2,309	333	72	1,205	1,208	301
3,325	704	635,060	3,516	4,046	654	449	1,842	434	2,873
6,922	4,495	1,175,112	12,347	11,792	2,420	571	8,510	2,247	4,026
547	1,463	131,836	2,017	2,094	94	3	1,297	635	259
820	1,406	197,647	2,531	2,058	1,099	31	2,479	317	392
3,344	4,950	464,137	8,537	7,972	1,129	260	6,668	687	2,006
3,277	5,553	553,769	8,020	8,923	823	220	5,418	1,780	2,768
7,141	36,812	1,388,188	42,729	41,962	5,422	225	37,671	3,699	6,239
963	107	154,599	843	962	124	82	205	226	737
3	3	666	2	6	....	....	....	1	5
208	674	45,621	1,009	832	218	2	867	168	17
549	4,742	156,914	5,730	5,129	709	26	4,121	1,510	233
411	1,334	60,697	2,398	1,825	882	215	1,110	163	1,649
....	....	....	....	1	....	20	....	1	20
919	6,830	245,582	8,345	7,285	1,489	37	7,023	1,375	413
153	623	34,200	929	772	201	38	619	280	112
61	960	21,235	1,021	1,018	95	....	652	416	45
201	468	37,882	553	655	81	19	294	194	267
137	2,274	44,828	2,136	2,337	339	10	1,806	721	159
3,638	7,612	637,537	11,956	11,513	1,017	590	7,194	3,325	2,601
3,339	1,157	466,966	3,974	4,538	868	226	2,394	726	2,512
344	5,510	145,422	6,007	5,592	624	12	4,485	1,642	101
2,268	940	329,318	2,124	3,433	512	180	1,195	517	2,413
991	56	227,412	664	1,051	361	92	304	100	1,100
337	286	130,716	505	628	177	5	429	85	296
38	44	9,008	87	99	6	....	40	24	41
278	151	46,015	395	444	58	21	226	56	241
652	109	98,385	606	707	244	33	354	96	534
80	265	16,635	283	361	3	7	192	123	56
59,679	104,466	9,974,528	159,331	161,564	25,449	5,436	113,156	28,564	50,729

TABLE XIII A.—SEX, AGE, AND LENGTH OF RESIDENCE IN UNITED STATES OF NONEMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY RACES OR PEOPLES.

Race or people.	Sex.			Age.			Continuous residence in the United States.					Residence outside United States.
	Male.	Female.	Total departed.	Under 14 years.	14 to 44 years.	45 years and over.	Not over 5 years.	5 to 10 years.	10 to 15 years.	15 to 20 years.	Over 20 years.	
African (black)	806	389	1,195	70	1,022	103	317	83	22	14	5	754
Armenian	177	24	201	12	163	26	45	30	2	5	....	119
Bohemian and Moravian (Czech)	319	242	561	28	468	65	213	96	18	12	5	217
Bulgarian, Servian, and Montenegrin	1,170	36	1,206	8	1,118	80	433	33	2	....	....	738
Chinese	6,008	160	6,168	241	4,476	1,451	628	623	561	460	732	3,164
Croatian and Slovenian	2,485	311	2,796	128	2,461	207	902	147	5	9	7	1,726
Cuban	3,454	1,299	4,753	506	3,676	571	1,336	150	42	17	21	3,187
Dalmatian, Bosnian, and Herzegovinian	211	22	233	4	212	17	107	17	1	....	....	108
Dutch and Flemish	1,483	436	1,919	107	1,568	244	651	162	22	25	11	1,048
East Indian	46	9	55	1	47	7	4	2	1	1	....	47
English	14,715	8,427	23,142	1,492	17,259	4,391	4,786	1,135	254	222	223	16,522
Finnish	2,088	1,013	3,101	142	2,790	169	1,627	901	85	38	11	439
French	2,922	1,633	4,555	242	3,527	786	561	215	49	37	46	3,647
German	7,859	4,391	12,250	545	9,919	1,786	3,438	1,136	221	231	217	7,007
Greek	2,756	97	2,853	45	2,597	211	758	186	18	3	1	1,887
Hebrew	2,853	1,076	3,929	292	3,154	483	1,249	237	27	14	19	2,383
Irish	3,831	5,901	9,732	225	8,573	934	3,635	2,675	664	336	314	2,108
Italian (North)	7,135	980	8,115	339	7,148	628	2,700	774	95	49	37	4,460
Italian (South)	28,295	2,991	31,286	1,503	27,019	2,764	12,379	2,289	225	124	48	16,221
Japanese	2,993	597	3,590	124	3,111	355	1,117	913	360	153	100	947
Korean	25	....	25	....	25	....	21	....	....	....	....	4
Lithuanian	932	217	1,149	81	962	106	244	63	6	....	....	836
Magyar	4,462	1,472	5,934	311	5,070	553	2,293	431	55	16	9	3,130
Mexican	645	202	847	88	673	86	20	3	2	1	1	820
Pacific Islander	19	10	29	4	20	5	3	....	....	....	....	26
Polish	6,880	1,490	8,370	361	7,279	730	2,044	538	67	48	18	5,655
Portuguese	1,656	636	2,292	133	1,858	301	998	581	173	69	49	422
Roumanian	655	95	750	13	661	76	271	31	3	1	1	443
Russian	2,018	400	2,418	99	2,101	218	439	104	26	11	2	1,836
Ruthenian (Russniak)	420	61	481	8	443	30	129	17	6	3	1	325
Scandinavian	8,148	5,899	14,047	405	12,484	1,158	6,642	3,597	427	353	257	2,771
Scotch	3,436	2,061	5,497	366	4,111	1,020	1,486	372	69	70	75	3,425
Slovak	1,824	566	2,390	100	2,067	223	804	228	32	17	4	1,305
Spanish	3,223	684	3,907	220	3,150	537	667	137	74	9	8	3,012
Spanish-American	993	443	1,436	147	1,054	235	69	10	1	....	....	1,356
Syrian	682	160	842	51	704	87	174	131	20	9	....	508
Turkish	391	34	425	26	380	19	93	14	3	1	....	314
Welsh	369	146	515	16	416	83	147	30	7	6	3	322
West Indian (other than Cuban)	794	518	1,312	141	1,001	170	166	63	14	3	2	1,064
Other peoples	272	12	284	8	252	24	134	9	4	1	....	136
Total	129,450	45,140	174,590	8,632	145,019	20,939	33,730	18,163	3,663	2,368	2,227	94,439

TABLE XIV.—NONIMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY COUNTRIES.

Country of last permanent residence.	Countries of intended future permanent residence.																			
	Austria-Hungary.	Belgium.	Bulgaria, Servia, and Montenegro.	Denmark.	France, including Corsica.	German Empire.	Greece.	Italy, including Sicily and Sardinia.	Netherlands.	Norway.	Portugal, including Cape Verde and Azore islands.	Roumania.	Russian Empire.	Spain, including Canary and Balearic islands.	Sweden.	Switzerland.	Turkey in Europe.	United Kingdom.	Other Europe.	Total Europe.
Austria-Hungary	128				2	6														136
Belgium		88																1		89
Bulgaria, Servia, and Montenegro			1																	1
Denmark				47	4								1							52
France, including Corsica		1			565	2								1				2		571
German Empire		3			1	835		1	1										1	842
Greece						1	3													4
Italy, including Sicily and Sardinia					1			307												308
Netherlands					1	1			141											143
Norway										507								1		508
Portugal, including Cape Verde and Azore islands											7									7
Roumania	2											8								10
Russian Empire						2							90					1		93
Spain, including Canary and Balearic islands					1									139				2		142
Sweden															59					59
Switzerland					1	4										51				56
Turkey in Europe																	1			1
United Kingdom	2				1	4		8	3	1								3,873		3,892
Other Europe																			1	1
Total Europe	132	92	1	47	577	855	3	316	145	508	7	8	91	140	59	51	1	3,880	2	6,915
China					5	11		2		1					7			103		129
Japan	3				3	3			1				3	1				46		60
India					1	1												49		51
Turkey in Asia		2			1															3
Other Asia					5				1									13		19
Total Asia	3	2			15	15		2	2	1			3	1	7			211		262

TABLE XIV.—NONIMMIGRANT ALIENS ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY COUNTRIES—Continued.

Country of last permanent residence.	Countries of intended future permanent residence.																			
	Austria-Hungary.	Belgium.	Bulgaria, Servia, and Montenegro.	Denmark.	France, including Corsica.	German Empire.	Greece.	Italy, including Sicily and Sardinia.	Netherlands.	Norway.	Portugal, including Cape Verde and Azore islands.	Roumania.	Russian Empire.	Spain, including Canary and Balearic islands.	Sweden.	Switzerland.	Turkey in Europe.	United Kingdom.	Other Europe.	Total Europe.
Africa					1										2			11		14
Australia, Tasmania, and New Zealand				2	1	4							3					176		186
Pacific islands, not specified					9	7			10							1		25		52
British North America	483	106	57	15	283	69	96	6,680	46	25	1	4	185	3	45	17	54	1,172		9,341
British Honduras						1			1							1		22		25
Other Central America	7	14		1	160	123	1	62	1	2				20	6	2		151		550
Mexico	2	11		6	103	50		58	1	2			2	294	2	4	1	120		656
South America	1	15			188	145		49	13	1	1			13	1	1		221		649
West Indies	4	11		6	235	109	5	100	25	11			3	352	2	4	1	480		1,348
United States	3	2	1	1	10	5		5		3			4	3				41		78
Grand total	635	253	59	78	1,582	1,383	105	7,272	244	553	9	12	291	826	124	81	57	6,510	2	20,076
Male	554	190	59	62	1,141	1,054	98	6,925	204	530	9	8	229	609	107	69	57	4,841	2	16,748
Female	81	63		16	441	329	7	347	40	23		4	62	217	17	12		1,669		3,328

Country of last permanent residence.	Countries of intended future permanent residence—Continued.																			
	China.	Japan.	India.	Turkey in Asia.	Other Asia.	Total Asia.	Africa.	Australia, Tasmania, and New Zealand.	Pacific islands, not specified.	British North America.	British Honduras.	Other Central America.	Mexico.	South America.	West Indies.	United States.	Other countries.	Grand total.	Male.	Female.
Austria-Hungary								1	1	1,476		4	15	8	9			1,650	1,172	478
Belgium	5	2	2			9			1	130		13	10	1	13			266	196	70
Bulgaria, Servia, and Montenegro										45				1	1			48	46	2
Denmark	4					4				56		1	4	1	2			120	85	35
France, including Corsica	3	10				13		1	41	468	3	68	242	96	168		22	1,693	1,146	547

German Empire	6	13	....	......	1	20	......	2	3	416	8	101	184	98	61	....	....	1,735	1,269	466
Greece	......	......	....	......	....	......	......	......	......	119	......	1	....	......	....	....	....	124	105	19
Italy, including Sicily and Sardinia	1	5	....	......	....	6	......	4	......	5,504	......	33	120	15	79	....	....	6,069	5,377	692
Netherlands	......	1	....	......	....	1	......	......	......	128	......	5	10	2	15	....	....	304	235	69
Norway	......	......	....	......	....	......	......	......	......	134	......	......	2	......	13	....	....	657	601	56
Portugal, including Cape Verde and Azore islands	......	......	....	......	....	......	......	......	......	7	......	1	....	2	3	....	....	20	15	5
Roumania	......	......	....	......	....	......	......	......	......	62	......	......	1	......	5	....	....	78	48	30
Russian Empire	......	......	....	......	....	......	......	......	......	1,019	......	......	5	......	4	....	....	1,121	638	483
Spain, including Canary and Balearic islands	......	......	....	......	....	......	......	......	1	39	......	36	418	19	552	....	....	1,207	884	323
Sweden	......	......	....	......	....	......	......	......	......	175	......	3	5	1	17	....	....	260	215	45
Switzerland	1	2	....	......	....	3	......	......	......	60	......	9	15	11	....	....	....	154	126	28
Turkey in Europe	......	......	....	......	....	......	......	......	......	224	......	......	....	......	....	....	....	225	223	2
United Kingdom	70	100	9	......	8	187	13	202	15	3,603	65	81	369	105	395	....	3	8,930	6,377	2,553
Other Europe	......	......	....	......	....	......	......	......	......	1	......	......	1	......	3	....	....	6	6	....
Total Europe	90	133	11	......	9	243	13	210	62	13,666	76	356	1,401	360	1,340	....	25	24,667	18,764	5,903
China	913	1	....	......	....	914	......	......	......	11	......	106	988	56	337	....	....	2,541	2,438	103
Japan	......	220	....	......	....	220	......	......	......	26	......	......	4	1	8	....	....	319	286	33
India	1	......	49	......	....	50	......	......	......	30	......	......	4	......	2	....	....	137	100	37
Turkey in Asia	......	......	1	5	....	6	......	......	......	259	......	2	10	1	7	....	....	288	242	46
Other Asia	......	......	....	1	41	42	......	......	......	2	......	......	....	4	....	....	....	67	48	19
Total Asia	914	221	50	6	41	1,232	......	......	......	328	......	108	1,006	62	354	....	....	3,352	3,114	238
Africa	2	......	....	......	....	2	53	1	......	52	......	......	3	6	2	....	....	133	94	39
Australia, Tasmania, and New Zealand	......	......	....	......	....	......	......	564	3	37	......	1	6	......	....	....	....	797	510	287
Pacific islands, not specified	1	......	....	......	....	1	......	......	54	1	......	......	....	1	2	....	....	111	85	26
British North America	1	15	....	131	2	149	22	15	2	4,227	......	7	13	26	91	....	2	13,895	11,904	1,991
British Honduras	......	......	....	......	....	......	......	......	......	3	60	1	2	......	....	....	....	91	59	32
Other Central America	83	1	....	12	....	96	1	1	......	77	2	750	34	6	47	....	....	1,564	1,178	386
Mexico	60	4	3	20	....	87	......	......	......	49	......	2	917	31	14	....	1	1,757	1,324	433
South America	9	10	....	2	....	21	......	2	1	142	......	13	77	436	113	....	....	1,454	1,075	379
West Indies	287	3	2	46	....	338	5	1	4	633	2	23	35	56	3,259	....	....	5,704	4,198	1,506
United States	2	6	1	......	....	9	......	3	......	72	......	15	11	9	38	138,680	....	138,915	106,125	32,790
Other countries	......	......	....	......	....	......	......	......	......	5	......	......	....	......	....	....	4	9	6	3
Grand total	1,449	393	67	217	52	2,178	94	797	126	19,292	140	1,276	3,505	993	5,260	138,680	32	192,449	....	....
Male	1,364	361	52	171	41	1,989	71	521	95	14,349	90	985	2,921	785	3.931	105,924	27	....	148,436	....
Female	85	32	15	46	11	189	23	276	31	4,943	50	291	584	208	1,329	32,756	5	....	....	44,013

TABLE XIV A.—NONEMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY COUNTRIES.

Country of last permanent residence.	Countries of intended future permanent residence.																			
	Austria-Hungary.	Belgium.	Bulgaria, Servia, and Montenegro.	Denmark.	France, including Corsica.	German Empire.	Greece.	Italy, including Sicily and Sardinia.	Netherlands.	Norway.	Portugal, including Cape Verde and Azore islands.	Roumania.	Russian Empire.	Spain, including Canary and Balearic islands.	Sweden.	Switzerland.	Turkey in Europe.	United Kingdom.	Other Europe.	Total Europe.
Austria-Hungary	9,587		18		5	10	1	7				3	11			4		4		9,650
Belgium		243	1		6	1												2		253
Bulgaria, Servia, and Montenegro	5		364		2		2	2				3				1	7			386
Denmark				255	1	2														258
France, including Corsica					2,629	4		2					2			2		14		2,653
German Empire	16			1	11	3,635		4	1			2	3			8		11		3,692
Greece	5					1	1,433	2					1				11			1,453
Italy, including Sicily and Sardinia	33			1	18	2	1	14,612						1		6		9	1	14,684
Netherlands				1	1	3			463									1		469
Norway				4						523					1			1		529
Portugal, including Cape Verde and Azore islands								1			231									232
Roumania					3			2				124	1					1		131
Russian Empire	8	2		2	10	2		1					6,812		1		4	20		6,862
Spain, including Canary and Balearic islands					7			1			6			687				1		702
Sweden	1			1	2								1		404					409
Switzerland	3				15	2										256		4		280
Turkey in Europe	44		30		2		13	2				4					333	1		429
United Kingdom	5				16	10		2		1			1	5		5		10,539	1	10,585
Other Europe																			5	5
Total Europe	9,707	245	413	265	2,728	3,672	1,450	14,638	464	524	237	136	6,832	693	406	282	355	10,608	7	53,662
China				1	5	7			1		3				4			34		55
Japan	1			1	3	3							2		1	1		9		21
India					1													17		18
Turkey in Asia	1		6		2		5						2				1	3		20
Other Asia																		2		2
Total Asia	2		6	2	11	10	5		1		3		4		5	1	1	65		116
Africa					3													5		8
Australia, Tasmania, and New Zealand	1					2												23		26
Pacific Islands, not specified					8	3			3											14

British North America	443	23	28	3	201	67	29	2,091	24	8		4	229	9	20	20	17	1,128		4,344
British Honduras					2	1			1									10		14
Other Central America	3				35	11		9		1				3		9		24		95
Mexico		2			66	41		31	3				2	27	2	11		64		249
South America	1			1	36	21		11	1					8	1	1		32		113
West Indies	2	5		1	86	26		24	7	5			1	95		1		100		353
United States																				
Other countries					4															4
Grand total	10,159	275	447	272	3,180	3,854	1,484	16,804	504	538	240	140	7,068	835	434	325	373	12,059	7	58,998
Male	8,299	213	438	168	2,122	2,683	1,428	15,033	384	393	216	104	5,857	684	275	228	361	7,802	6	46,694
Female	1,860	62	9	104	1,058	1,171	56	1,771	120	145	24	36	1,211	151	159	97	12	4,257	1	12,304

TABLE XIV A.—NONEMIGRANT ALIENS DEPARTED, FISCAL YEAR ENDED JUNE 30, 1909, BY COUNTRIES—Continued.

Country of last permanent residence.	Countries of intended future permanent residence—Continued.																			
	China.	Japan.	India.	Turkey in Asia.	Other Asia.	Total Asia.	Africa.	Australia, Tasmania, and New Zealand.	Pacific islands, not specified.	British North America.	British Honduras.	Other Central America.	Mexico.	South America.	West Indies.	United States.	Other countries.	Grand total.	Male.	Female.
Austria-Hungary		1				1	2			5		6	6	16	12	1,163		10,861	8,821	2,040
Belgium												7	5	3	6	85		359	267	92
Bulgaria, Servia, and Montenegro				7		7										28		421	414	7
Denmark										1		1	1	3	4	104		372	228	144
France, including Corsica		1				1	1			2		84	25	76	74	226	7	3,149	2,031	1,118
German Empire	1				1	2	1	1	1	6	3	95	65	134	59	490		4,549	3,124	1,425
Greece				4		4	5	2				7	1	3	6	97		1,578	1,514	64
Italy, including Sicily and Sardinia										6		39	42	87	85	3,024		17,967	15,928	2,039
Netherlands													8	5	7	64		553	428	125
Norway	2					2						2	1	2	1	348		885	653	232
Portugal, including Cape Verde and Azore islands												11		12	15	69		339	303	36
Roumania														1		34		166	125	41
Russian Empire				1		1	5					7	3	14	5	717		7,614	6,263	1,351
Spain, including Canary and Balearic islands												46	119	38	393	51		1,349	1,108	241
Sweden	2		1			3		1				4	2	1	20	319		759	472	287
Switzerland												2	3	10		68		363	256	107
Turkey in Europe													1	2	5	50		487	470	17
United Kingdom	18	11	3		8	40	15	28	4	27	51	50	66	35	228	2,348		13,477	8,697	4,780
Other Europe												1	5	1				12	9	3
Total Europe	23	13	4	12	9	61	29	32	5	47	54	362	353	443	920	9,285	7	65,260	51,111	14,149
China	1,495					1,495						6	586	1	299	2		2,444	2,356	88
Japan		924				924				3				1	8	6		963	810	153
India			53			53									1	6		78	59	19
Turkey in Asia				291		291	4			2		2	10	12	22	34		397	334	63
Other Asia					45	45												47	43	4
Total Asia	1,495	924	53	291	45	2,808	4			5		8	596	14	330	48		3,929	3,602	327
Africa				1		1	116	1		1				3	4	6		140	101	39
Australia, Tasmania, and New Zealand								548		1		3		1	3	4		586	400	186
Pacific islands, not specified									190									204	162	42

British North America	1	7	11	34	1	54	16	13	1	6,633		16	24	85	335	283		11,804	9,013	2,791
British Honduras				1		1					90		1	1	1			108	68	40
Other Central America			1	1		2	2		1		1	1,268	16	6	26	13		1,430	1,080	350
Mexico				6		6		5			8	6	1,536	31	49	15		1,905	1,516	389
South America				1		1		2				4	19	998	84	22		1,243	939	304
West Indies	13	1		19		33	1	4	2	2	2	22	13	44	7,232	113		7,821	5,699	2,122
United States																80,151		80,151	55,753	24,398
Other countries																	5	9	6	3
Grand total	1,532	945	69	366	55	2,967	168	605	199	6,689	155	1,689	2,558	1,626	8,984	89,940	12	174,590		
Male	1,452	795	47	296	45	2,635	121	411	160	4,715	94	1,271	2,153	1,218	6,631	63,336	11		129,450	
Female	80	150	22	70	10	332	47	194	39	1,974	61	418	405	408	2,353	26,604	1			45,140

TABLE XV.—IMMIGRATION, FISCAL YEARS ENDED JUNE 30, 1899–1909, BY RACES OR PEOPLES.

Race or people.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.
African (black)	412	714	594	832	2,174	2,386	3,598	3,786	5,235	4,626	4,307
Armenian	674	982	1,855	1,151	1,759	1,745	1,878	1,895	2,644	3,299	3,108
Bohemian and Moravian	2,526	3,060	3,766	5,590	9,591	11,911	11,757	12,958	13,554	10,164	6,850
Bulgarian, Servian, Montenegrin	94	204	611	1,291	6,479	4,577	5,823	11,548	27,174	18,246	6,214
Chinese	1,638	1,250	2,452	1,631	2,192	4,327	1,971	1,485	770	1,263	1,841
Croatian and Slovenian	8,632	17,184	17,928	30,233	32,907	21,242	35,104	44,272	47,826	20,472	20,181
Cuban	1,374	2,678	1,622	2,423	2,944	4,811	7,259	5,591	5,475	3,323	3,380
Dalmatian, Bosnian, Herzegovinian	367	675	732	1,004	1,736	2,036	2,639	4,568	7,393	3,747	1,888
Dutch and Flemish	1,860	2,702	3,299	4,117	6,496	7,832	8,498	9,735	12,467	9,526	8,114
East Indian	15	9	20	84	83	258	145	271	1,072	1,710	337
English	10,712	10,897	13,488	14,942	28,451	41,479	50,865	45,079	51,126	49,056	39,021
Finnish	6,097	12,612	9,999	13,868	18,864	10,157	17,012	14,136	14,860	6,746	11,687
French	2,278	2,095	4,036	4,122	7,166	11,557	11,347	10,379	9,392	12,881	19,423
German	26,632	29,682	34,742	51,686	71,782	74,790	82,360	86,813	92,936	73,038	58,534
Greek	2,395	3,773	5,919	8,115	14,376	12,625	12,144	23,127	46,283	28,808	20,262
Hebrew	37,415	60,764	58,098	57,688	76,203	106,236	129,910	153,748	149,182	103,387	57,551
Irish	32,345	35,607	30,404	29,001	35,366	37,076	54,266	40,959	38,706	36,427	31,185
Italian (north)	13,091	17,316	22,103	27,620	37,429	36,699	39,930	46,286	51,564	24,700	25,150
Italian (south)	65,639	84,346	115,704	152,915	196,117	159,329	186,390	240,528	242,497	110,547	165,248
Japanese	3,395	12,628	5,249	14,455	20,041	14,382	11,021	14,243	30,824	16,418	3,275
Korean	22	71	47	28	564	1,907	4,929	127	39	26	11
Lithuanian	6,858	10,311	8,815	11,629	14,432	12,780	18,604	14,257	25,884	13,720	15,254
Magyar	5,700	13,777	13,311	23,610	27,124	23,883	46,030	44,261	60,071	24,378	28,704
Mexican	163	261	350	715	486	447	227	141	91	5,682	15,591
Pacific Islander	172	188	167	160	185	41	22	13	3	2	7
Polish	28,466	46,938	43,617	69,620	82,343	67,757	102,437	95,835	138,033	68,105	77,565
Portuguese	2,096	4,241	4,176	5,309	8,433	6,338	4,855	8,729	9,648	6,809	4,606
Roumanian	96	398	761	2,033	4,740	4,364	7,818	11,425	19,200	9,629	8,041
Russian	1,774	1,200	672	1,551	3,608	3,961	3,746	5,814	16,807	17,111	10,038
Ruthenian (Russniak)	1,400	2,832	5,288	7,533	9,843	9,592	14,473	16,257	24,081	12,361	15,808
Scandinavian	23,249	32,952	40,277	55,780	79,347	61,029	62,284	58,141	53,425	32,789	34,996
Scotch	1,752	1,757	2,004	2,432	6,219	11,483	16,144	16,463	20,516	17,014	16,446
Slovak	15,838	29,243	29,343	36,934	34,427	27,940	52,368	38,221	42,041	16,170	22,586
Spanish	996	1,111	1,202	1,954	3,297	4,662	5,590	5,332	9,495	6,636	4,939
Spanish-American	110	97	276	496	978	1,666	1,658	1,585	1,060	1,063	890
Syrian	3,708	2,920	4,064	4,982	5,551	3,653	4,822	5,824	5,880	5,520	3,668
Turkish	28	184	136	165	449	1,482	2,145	2,033	1,902	2,327	820
Welsh	1,359	762	674	760	1,278	1,820	2,531	2,367	2,754	2,504	1,699
West Indian (except Cuban)	144	78	82	137	1,497	1,942	1,548	1,476	1,381	1,110	1,024
Other peoples	193	73	35	147	89	668	351	1,027	2,058	1,530	1,537
Total	311,715	448,572	487,918	648,743	857,046	812,870	1,026,499	1,100,735	1,285,349	782,870	751,786

TABLE XVI.—TOTAL IMMIGRATION EACH YEAR, 1820–1909.

Period.	Number.
Year ended Sept. 30—	
1820	8,385
1821	9,127
1822	6,911
1823	6,354
1824	7,912
1825	10,199
1826	10,837
1827	18,875
1828	27,382
1829	22,520
1830	23,322
1831	22,633
Oct. 1, 1831, to Dec. 31, 1832	60,482
Year ended Dec. 31—	
1833	58,640
1834	65,365
1835	45,374
1836	76,242
1837	79,340
1838	38,914
1839	68,069
1840	84,066
1841	80,289
1842	104,565
Jan. 1 to Sept. 30, 1843	52,496
Year ended Sept. 30—	
1844	78,615
1845	114,371
1846	154,416
1847	234,968
1848	226,527
1849	297,024
1850	310,004
Oct. 1 to Dec. 31, 1850	59,976
Year ended Dec. 31—	
1851	379,466
1852	371,603
1853	368,645
1854	427,833
1855	200,877
1856	195,857
Jan. 1 to June 30, 1857	112,123
Year ended June 30—	
1858	191,942
1859	129,571
1860	133,143
1861	142,877
1862	72,183
1863	132,925
Year ended June 30—Continued.	
1864	191,114
1865	180,339
1866	332,577
1867	303,104
1868	282,189
1869	352,768
1870	387,203
1871	321,350
1872	404,806
1873	459,803
1874	313,339
1875	227,498
1876	169,986
1877	141,857
1878	138,469
1879	177,826
1880	457,257
1881	669,431
1882	788,992
1883	603,322
1884	518,592
1885	395,346
1886	334,203
1887	490,109
1888	546,889
1889	444,427
1890	455,302
1891	560,319
1892	579,663
1893	439,730
1894	285,631
1895	258,536
1896	343,267
1897	230,832
1898	229,299
1899	311,715
1900	448,572
1901	487,918
1902	648,743
1903	857,046
1904	812,870
1905	1,026,499
1906	1,100,735
1907	1,285,349
1908	782,870
1909	751,786
Grand total	26,852,723

TABLE XVII.—ALIENS DEBARRED FROM ENTERING THE UNITED STATES,

Race or people.	Idiots.	Imbeciles.	Feeble-minded.	Epileptics.	Insane, have been insane within 5 years, or have had 2 attacks of insanity.	Tuberculosis (noncontagious.)	Loathsome or dangerous contagious diseases.				Professional beggars.	Paupers.	Likely to become a public charge.
							Tuberculosis (contagious).	Trachoma.	Favus.	Others.			
African (black)	1					1	1	9		5			33
Armenian		2					1	64	3	4			11
Bohemian and Moravian		1			2		1	8					40
Bulgarian, Servian, Montenegrin					1		1	44	1	2			91
Chinese								130		1			2
Croatian and Slovenian			2		2		1	73	1	1			72
Cuban		1						2					22
Dalmatian, Bosnian, Herzegovinian		1	1					2					6
Dutch and Flemish		2	1				1	6	1				18
East Indian								94		2			146
English		1	12	5	24		14	26	1	9	2		407
Finnish		1			3			23		2			14
French	2	1	2		10	2	9	16			1		159
German	2	5	8	4	14		3	137		15			298
Greek							3	90	5	5			247
Hebrew	2	9	18	3	8	1	8	157	39	24			225
Irish	2	1	13	2	34		5	15	1	7	1	1	184
Italian (north)		1	5		1			36		3	4		44
Italian (south)	1	11	19	4	11	2	4	260	15	19	31		535
Japanese					1			129					29
Korean													
Lithuanian			1	1	1			76	2	1			59
Magyar	1		4				1	48	1	5			67
Mexican	7		10	2	6	2	9	84		19	8		643
Pacific Islander								1					
Polish		1	10	1	1		1	187	2	1			340
Portuguese		1			1		1	2	3				24
Roumanian							1	36		2			50
Russian		1						58		4			99
Ruthenian (Russniak)			2		1		2	28		1			147
Scandinavian			2		10		1	17		2			61
Scotch			1	1	6		5	9	2	3			123
Slovak		1	9		1			40		2			70
Spanish				1				10		2			19
Spanish-American				1				4					7
Syrian				1	2		1	145	3	2	3		50
Turkish								6		1			3
Welsh		1	1					1					14
West Indian (except Cuban)								1					4
Other peoples					1			10			6		20
Total	18	42	121	26	141	8	74	2,084	80	144	56	1	4,401

FISCAL YEAR ENDED JUNE 30, 1909, BY RACES OR PEOPLES AND CAUSES.

Surgeon's certificate of defect mentally or physically which may affect alien's ability to earn a living.	Contract laborers.	Accompanying aliens (under sec. 11).	Under 16 years of age unaccompanied by parent.	Assisted aliens.	Criminals.	Polygamists.	Anarchists.	Prostitutes and females coming for any immoral purpose.	Aliens who procure or attempt to bring in prostitutes or females for any immoral purpose.	Under passport provision (sec. 1).	Under provisions Chinese-exclusion act.	Total debarred.
3	92	1	2		2			4				154
4	1	2	1		1							94
	11	2			2			1	1			69
14	110	1	1		1							267
											413	546
6	10	2			5							175
	2	2			1							30
1			4									15
1	4	3			3	2		3	1			46
54	17				2	16						331
30	170	6	2	1	15	2		26	13			766
1					4							48
16	68	5	3		7			29	8			338
22	44	20	4	10	20			20	11			637
7	166	15	64		2							604
42	13	39		7	4			11	4			614
35	44	7	1	2	15			18	3			391
10	15	4	1		2			3	1			130
59	90	28	10	2	121			10	8			1,240
5	19				3			4	3	80		273
										1		1
3	2	2	1		1			1	1			152
5	7	8	1		6			1	1			156
3	108	24	2	5	20			168	111			1,231
												1
16	29	6	6	1	8			4	4			618
2		4	5		1							44
3	5	1	12		3							122
2	11	2	1	4	2							184
4	9	3	3		4							204
5	20		1		7			3	2			131
9	70	1	1		3			12	7			253
3	1	4	1		5							137
1	11	1		2	1			2	2			52
		1										13
	5	8	1		1	2						233
	1		5			2						18
	2	1						3				23
1	2	3										11
3	13		5		1							59
370	1,172	206	138	34	273	24	......	323	181	81	413	10,411

TABLE XVII A.—ALIENS DEBARRED AND ALIENS DEPORTED AFTER ENTERING, 1892–1909, BY CAUSES.

Year ended June 30—	Immigration.	Debarred from entering.										
		Idiots.	Imbeciles.	Feeble-minded.	Epileptics.	Insane persons.	Tuberculosis (noncontagious).	Loathsome or dangerous contagious diseases.	Professional beggars.	Paupers, or likely to become public charges.	Surgeon's certificate of defect mentally or physically which may affect alien's ability to earn a living.	Contract laborers.
1892	579,663	4	....	....	....	17	......	80	....	1,002	....	932
1893	439,730	3	....	....	....	8	......	81	....	431	....	518
1894	285,631	4	....	....	....	5	......	15	....	802	....	553
1895	258,536	6	....	....	....	....	......	......	....	1,714	....	694
1896	343,267	1	....	....	....	10	......	2	....	2,010	....	776
1897	230,832	1	....	....	....	6	......	1	....	1,277	....	328
1898	229,299	1	....	....	....	12	......	258	....	2,261	....	417
1899	311,715	1	....	....	....	19	......	348	....	2,599	....	741
1900	448,572	1	....	....	....	32	......	393	....	2,974	....	833
1901	487,918	6	....	....	....	16	......	309	....	2,798	....	327
1902	648,743	7	....	....	....	27	......	709	....	3,944	....	275
1903	857,046	1	....	....	....	23	......	1,773	....	5,812	....	1,086
1904	812,870	16	....	....	....	33	......	1,560	....	4,798	....	1,501
1905	1,026,499	38	....	....	....	92	......	2,198	....	7,898	....	1,164
1906	1,100,735	92	....	....	....	139	......	2,273	....	7,069	....	2,314
1907	1,285,349	29	....	....	....	189	......	3,822	....	6,866	....	1,434
1908	782,870	20	45	121	25	159	6	2,900	31	3,710	870	1,932
1909	751,786	18	42	121	26	141	8	2,382	56	4,402	370	1,172

Year ended June 30—	Debarred from entering—Continued.											
	Accompanying aliens.	Under 16 years of age, unaccompanied by parent.	Assisted aliens.	Criminals.	Polygamists.	Anarchists.	Prostitutes and females coming for any immoral purpose.	Aliens who procure or attempt to bring in prostitutes and females for any immoral purpose.	Under passport provision (sec. 1).	Under provisions of Chinese-exclusion act.	Total debarred.	Deported after entry.
1892	......	......	23	26	....	....	80	....	......	....	2,164	637
1893	......	......	....	12	....	....	....	....	......	....	1,053	577
1894	......	......	....	8	....	....	2	....	......	....	1,389	417
1895	......	......	1	4	....	....	....	....	......	....	2,419	177
1896	......	......	....	......	....	....	....	....	......	....	2,799	238
1897	......	......	3	1	....	....	....	....	......	....	1,617	263
1898	......	......	79	2	....	....	....	....	......	....	3,030	199
1899	......	......	82	8	....	....	....	....	......	....	3,798	263
1900	......	......	2	4	....	....	7	....	......	....	4,246	356
1901	......	......	50	7	....	....	3	....	......	....	3,516	363
1902	......	......	....	9	....	....	3	....	......	....	4,974	465
1903	......	......	9	51	1	....	13	....	......	....	8,769	547
1904	......	......	38	35	....	1	9	3	......	....	7,994	779
1905	......	......	19	39	3	1	24	4	......	394	11,879	845
1906	180	......	....	205	5	1	30	2	......	122	12,432	676
1907	134	......	....	341	10	....	18	1	60	160	13,064	995
1908	168	88	54	136	6	2	124	43	272	190	10,902	2,069
1909	206	138	34	273	24	....	323	181	81	413	10,411	2,124

TABLE XVII B.—PERMANENT RESIDENTS OF FOREIGN CONTIGUOUS TERRITORY APPLYING FOR TEMPORARY SOJOURN IN THE UNITED STATES REFUSED ADMISSION, FISCAL YEAR ENDED JUNE 30, 1909, BY CAUSES.

Station.	Idiots.	Imbeciles.	Feeble-minded.	Insane persons.	Tuberculosis (noncontagious).	Loathsome or dangerous contagious diseases.	Professional beggars.	Paupers, or likely to become public charges.	Surgeon's certificate of defect mentally or physically which may affect alien's ability to earn a living.
Canadian border				1		3		22	1
Mexican border	1		3	2		34	10	182	3
Boston, Mass								1	
Galveston, Tex								1	
San Francisco, Cal						13		1	
Total	1	....	3	3	......	50	10	207	4

Station.	Contract laborers.	Accompanying aliens.	Under 16 years of age, unaccompanied by parent.	Assisted aliens.	Criminals.	Prostitutes and females coming for any immoral purpose.	Aliens who procure or attempt to bring in prostitutes and females for any immoral purpose.	Under passport provision (sec. 1).	Total.
Canadian border	22	3				4	1		57
Mexican border	32		2		11	52	30	1	363
Boston, Mass					2				3
Galveston, Tex									1
San Francisco, Cal	1	1							16
Total	55	4	2	....	13	56	31	1	440

TABLE XVIII.—ALIENS DEPORTED TO COUNTRIES WHENCE THEY CAME AFTER
OR PEOPLES

Race or people.	Deportation mandatory within 3 years.																					
	Members of excluded classes at time of entry.																					
	Imbeciles.	Feeble-minded.	Epileptics.	Insane, have been insane within 5 years or have had 2 attacks of insanity.	Loathsome or dangerous contagious diseases.				Professional beggars.	Paupers.	Likely to become a public charge.	Contract laborers.	Under 16 years of age at time of entry, unaccompanied by parent.	Assisted aliens.	Criminals.	Polygamists.	Anarchists.	Prostitutes and females coming for any immoral purpose.	Aliens who procure or attempt to bring in prostitutes or females for any immoral purpose.	Under passport provision (sec. 1).	Other causes.	Total members excluded classes at time of entry.
					Tuberculosis (contagious).	Trachoma.	Favus.	Others.														
African (black)	1			2							2	1			1							7
Armenian																						
Bohemian and Moravian															1							1
Bulgarian, Servian, Montenegrin						1					1	86						2	1			91
Chinese																		1				1
Croatian and Slovenian		1				1			1									1				4
Cuban																						
Dalmatian, Bosnian, Herzegovinian																						
Dutch and Flemish											1				1	2		1	2			7
East Indian																						
English			2	2							10	9			3	1		27	2			56
Finnish				1														1				2
French				1							5	12	1	2	5			30	7			63
German	1	1	4	2	1						15	1			8			10	4			47
Greek											2	4			3			1				10
Hebrew	4	2	1	1							14				2		1	6	1			32
Irish	1	3	1	1	1			1			7				3			3	1			22
Italian (north)				1											5				1			7
Italian (south)	2	2	3	3							2				29			3	1			45
Japanese						1												3	1	188		193
Korean																						
Lithuanian																						
Magyar		1									2				1			1	1			6
Mexican				2					2		3	4			1			24	1			37
Pacific Islander																						
Polish	2		1	1							5		1		3			2	3			18
Portuguese																						
Roumanian																						
Russian			1															2			1	4
Ruthenian (Russniak)																		1	1			2
Scandinavian				2							2	1			2			2	2			11
Scotch												1			1			4				6
Slovak																		2	1			3
Spanish																						
Spanish-American																		1				1
Syrian						1					1											2
Turkish				1		2						2										5
Welsh			1																			1
West Indian (except Cuban)																						
Other peoples												1										1
Total	11	10	14	20	2	6	..	1	3	..	72	122	2	2	69	3	1	128	30	188	1	685

ENTERING THE UNITED STATES, FISCAL YEAR ENDED JUNE 30, 1909, BY RACES AND CAUSES.

Deportation mandatory within 3 years—Continued.												Public charges within one year after entry, from subsequent causes.						Total returned.
Public charges from following causes existing prior to entry.									Prostitutes after entry.	Entered without inspection.	Total mandatory within 3 years.	Insanity.	Loathsome or dangerous contagious diseases.	Dependent members of family.	Physical conditions.	Other causes.	Total public charges from subsequent causes.	
Insanity.	Loathsome or dangerous contagious diseases.			Pregnancy.	Dependent members of family.	Physical conditions.	Other causes.	Total public charges from prior causes.										
	Tuberculosis (contagious).	Trachoma.	Others.															
7	....	....	....	....	....	....	....	7	....	4	18	....	....	....	....	....	....	18
1	....	....	....	....	....	2	1	4	....	1	5	....	....	....	....	....	....	5
17	1	....	....	....	1	1	1	21	1	2	25	....	....	1	1	....	2	27
5	4	2	....	....	....	1	....	12	....	3	106	....	1	....	....	....	1	107
....	....	....	....	....	....	....	....	....	....	16	17	....	....	....	....	....	....	17
13	4	....	....	....	....	4	....	21	....	....	25	....	....	....	1	....	1	26
1	....	....	....	....	....	....	1	2	....	....	2	....	....	....	....	....	....	2
2	1	....	....	....	....	1	....	4	....	1	5	....	....	....	....	....	....	5
5	1	....	....	....	1	1	....	8	3	....	18	....	....	....	....	....	....	18
....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	1
31	2	....	3	1	8	23	4	72	9	31	168	....	1	....	3	1	5	173
21	2	....	....	....	....	....	....	23	....	2	27	....	....	....	....	....	....	27
13	1	....	1	....	1	1	1	18	56	....	137	....	....	....	....	....	....	137
83	5	....	3	1	12	10	1	115	10	14	186	....	....	4	3	4	11	190
18	9	2	....	1	....	7	....	37	....	2	49	....	....	....	....	1	1	57
118	12	1	1	2	6	19	2	161	23	2	218	....	6	....	3	2	11	229
56	1	....	....	2	1	7	1	68	2	3	95	....	....	....	....	....	....	95
21	2	....	....	....	....	1	....	24	....	1	32	....	....	....	....	....	....	32
69	10	1	1	2	5	10	....	98	7	8	158	....	1	....	2	6	9	167
1	....	....	....	....	....	....	....	1	8	89	291	....	....	....	....	....	....	291
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
11	....	....	....	2	....	1	....	14	....	....	14	....	....	....	1	....	1	15
22	6	....	....	....	1	6	....	35	1	....	42	....	....	....	....	....	....	42
4	....	....	....	....	3	....	....	7	....	48	92	....	....	....	....	....	....	92
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
58	7	....	2	3	3	12	2	87	3	2	110	....	1	....	1	1	3	113
5	....	....	....	....	....	....	....	5	....	....	5	....	....	....	....	....	....	5
....	1	....	....	....	3	3	2	9	....	....	9	....	....	....	....	....	....	9
9	....	....	....	....	2	2	....	13	1	4	22	....	....	....	....	1	1	23
9	1	....	....	....	1	3	1	15	....	....	17	....	1	....	....	....	1	18
49	6	....	1	....	....	3	1	60	4	7	82	....	....	....	....	....	....	82
8	....	....	....	1	2	3	....	14	3	8	31	....	1	8	....	....	9	40
10	1	....	2	....	1	1	....	15	....	....	18	....	....	....	....	....	....	18
2	....	....	1	....	....	....	....	3	1	4	8	....	2	....	....	....	2	10
1	....	....	....	....	2	....	....	3	....	1	5	....	....	....	....	....	....	5
4	....	....	1	....	2	....	....	7	....	3	12	....	....	....	....	....	....	12
1	....	....	....	....	....	3	....	4	....	....	9	....	....	....	....	....	....	9
....	....	....	....	....	....	1	....	1	....	....	2	....	....	....	....	....	....	2
....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	1
....	....	....	....	....	....	2	....	2	1	....	4	....	....	....	....	....	....	4
675	77	6	16	15	55	128	18	990	133	258	2,066	....	14	13	15	16	58	2,124

TABLE XIX.—APPEALS FROM DECISIONS UNDER IMMIGRATION LAWS, AND APPLICATIONS FOR ADMISSION UNDER BOND, FISCAL YEAR ENDED JUNE 30, 1909, BY CAUSES.

Action taken.	Imbecile.	Feeble-minded.	Epileptic.	Insane, have been insane within 5 years or have had 2 attacks of insanity.	Loathsome or dangerous contagious diseases.	Paupers, or likely to become public charges, and professional beggars.	Contract laborers.	Accompanying aliens (under sec. 11).	Under 16 years of age unaccompanied by parent.	Assisted aliens.	Criminals.	Polygamists.	Anarchists.	Prostitutes and females coming for any immoral purpose.	Aliens who procure or attempt to bring in prostitutes or females for any immoral purpose.	Under passport provision (sec. 1).	Total.
APPEALS FROM EXCLUDING DECISIONS.																	
Pending at close of previous year						29	4		2		1			1	1		38
Appealed	2	3	1	6	30	1,237	350	39	26	19	59	19	1	27	8	12	1,839
Total	2	3	1	6	30	1,266	354	39	28	19	60	19	1	28	9	12	1,877
Disposition on appeal:																	
Admitted without bond	1	1		3	20	356	161	14	5	6	17	1	1			2	588
Admitted on bond						136	1	1		8	1	3				1	151
Debarred during current year	1	1	1	3	5	641	144	23	21	2	35	14		23	7	7	928
Withdrawn or otherwise finally disposed of by means other than departmental decision					1	49	38	1		3	4			2	1	1	100
Pending at close of current year		1			4	84	10		2		3	1		3	1	1	110
APPEALS FROM ADMITTING DECISIONS.																	
Appealed					1	16	12				5					1	35
Disposition on appeal:																	
Admitted without bond					1	8	3				3						15
Admitted on bond							1										1
Debarred during current year						6	3				1					1	11
Withdrawn or otherwise disposed of by means other than departmental decision						1	1										2
Pending at close of current year						1	4				1						6
APPLICATIONS FOR ADMISSION ON BOND WITHOUT APPEAL.																	
Admitted																	242
Refused																	201

TABLE XIX A.—APPEALS FROM DECISIONS UNDER IMMIGRATION LAWS, AND APPLICATIONS FOR ADMISSION UNDER BOND, FISCAL YEAR ENDED JUNE 30, 1909, BY PORTS.

Action taken.	New York, N. Y.	Boston, Mass.	Philadelphia, Pa.	Baltimore, Md.	Montreal, Canada.	San Francisco, Cal.	Galveston, Tex.	Key West, Fla.	Knights Key, Fla.	Mexican border.	Miami, Fla.	New Bedford, Mass.	New Orleans, La.	Portland, Me.	Seattle, Wash.	Tampa, Fla.	Total.
APPEALS FROM EXCLUDING DECISIONS.																	
Pending at close of previous year	23	8	2		3										2		38
Appealed	1,147	172	50	24	259	12	3	5	1	113		1	12	1	33	6	1,839
Total	1,170	180	52	24	262	12	3	5	1	113		1	12	1	35	6	1,877
Disposition on appeal:																	
Admitted without bond	429	47	16	7	53		2		1	20			3	1	9		588
Admitted on bond	99	18	2	7	10	6	1	3					2		1	2	151
Debarred	514	103	34	10	149	6		2		87		1	7		11	4	928
Withdrawn or otherwise disposed of by means other than departmental decision	51				35					3					11		100
Pending at close of current year	77	12			15					3					3		110
APPEALS FROM ADMITTING DECISIONS.																	
Total number	11			1	15	1				4	2		1				35
Disposition on appeal:																	
Admitted without bond	7			1	5						1		1				15
Admitted on bond						1											1
Debarred	1				6					3	1						11
Withdrawn or otherwise disposed of by means other than departmental decision	1									1							2
Pending at close of current year	2				4												6
APPLICATIONS FOR ADMISSION ON BOND WITHOUT APPEAL.																	
Admitted	171	18	2	5	33		1	2		5		1	2			2	242
Refused	172	6	2	3	13		3			2							201

TABLE XX.—DESERTING ALIEN SEAMEN, FISCAL YEAR ENDED JUNE 30, 1909, BY PORTS.

New York, N. Y	2,292	New Bedford, Mass	18
Boston, Mass. (Spain and France not included)	270	New Orleans, La	406
Baltimore, Md	97	Norfolk, Va	113
Philadelphia, Pa	661	Pascagoula, Miss	73
San Francisco, Cal	236	Pensacola, Fla	218
San Juan, P. R	4	Portland, Me	14
Brunswick, Ga	49	Portland, Oreg	237
Port Inglis, Fla	10	San Diego, Cal	12
Fernandina, Fla	16	Savannah, Ga	87
Galveston, Tex	320	Seattle, Wash	220
Gloucester, Mass	7	Tampa, Fla	35
Gulfport, Miss	236	Honolulu, Hawaii	45
Jacksonville, Fla	11	Alaska	10
Los Angeles, Cal	9	Total	5,839
Mobile, Ala	133		

TABLE XXI.—ALIEN STOWAWAYS FOUND ON BOARD VESSELS ARRIVING AT PORTS OF THE UNITED STATES, FISCAL YEAR ENDED JUNE 30, 1909, BY PORTS.

New York, N. Y	328	New Orleans, La	18
Boston, Mass	47	Norfolk, Va., and vicinity	4
Baltimore, Md	52	Pensacola, Fla	6
Philadelphia, Pa	30	Portland, Me	3
San Francisco, Cal	8	Portland, Oreg	1
Galveston, Tex	21	Savannah, Ga	6
Gulfport, Miss	2	Seattle, Wash	13
Jacksonville, Fla	1	Honolulu, Hawaii	9
Mobile, Ala	7		
Key West, Fla	1	Total	557

TABLE XXII.—PASSENGERS DEPARTED FROM SEAPORTS OF THE UNITED STATES FOR FOREIGN COUNTRIES OTHER THAN BRITISH NORTH AMERICA, FISCAL YEAR ENDED JUNE 30, 1909.

[In the absence of law requiring masters of vessels departing from the United States for foreign countries to deliver to collectors of customs returns of all passengers embarking on such vessels, reliance is had upon the courtesy of the agents of steamship and packet lines for information on the outward passenger movement. The following statistics relate only to the departure from the seaports indicated in the table, and comprise only the data secured in the manner above indicated, but it is probable that the departures given embrace nearly the entire passenger movement from the United States to foreign countries from our seaports.]

Line of vessels.	Port of destination.	Cabin passengers.							Passengers other than cabin.							Total passengers departed.
		Under 12 years of age.			12 years of age and over.			Total cabin.	Under 12 years of age.			12 years of age and over.			Total other than cabin.	
		Males.	Females.	Total.	Males.	Females.	Total.		Males.	Females.	Total.	Males.	Females.	Total.		
	From Baltimore, Md.:															
Atlantic Fruit Co.	Port Antonio, Jamaica				3	2	5	5								5
North German Lloyd	Bremen	87	69	156	644	779	1,423	1,579	162	148	310	1,074	548	1,622	1,932	3,511
United Fruit Co.	Port Antonio, Jamaica				62	33	95	95								95
	Total, Baltimore, Md.	87	69	156	709	814	1,523	1,679	162	148	310	1,074	548	1,622	1,932	3,611
	From Boston, Mass.:															
Allan	Glasgow	34	29	63	280	474	754	817	49	49	98	207	221	428	526	1,343
Austro-American	Mediterranean ports	3	3	6	15	9	24	30	145	98	243	1,316	262	1,578	1,821	1,851
Boston and Cuba Co.	Habana, Cuba	1		1	15	6	21	22								22
Cunard	Liverpool	160	160	320	1,600	2,123	3,723	4,043	412	457	869	2,801	3,147	5,948	6,817	10,860
Leyland	Do.	15	12	27	162	270	432	459								459
Sicula Americana	Mediterranean ports				67	8	75	75	5	6	11	32	32	64	75	150
United Fruit Co.	Port Limon, Costa Rica	13	5	18	216	106	322	340								340
Do.	Port Antonio, Jamaica	9	9	18	91	54	145	163								163
White Star	Liverpool	34	39	73	811	909	1,720	1,793	332	299	631	1,679	1,402	3,081	3,712	5.505
Do.	Mediterranean ports	99	103	202	926	1,485	2,411	2,613	861	609	1,470	4,261	5,492	9,753	11,223	13,836
Sailing vessels	Buenos Aires				5		5	5								5
	Total, Boston, Mass.	368	360	728	4,188	5,444	9,632	10,360	1,804	1,518	3.322	10,296	10,556	20,852	24,174	34,534
	From Brunswick, Ga.:															
Miscellaneous	West Indies				18	2	20	20				1		1	1	21

TABLE XXII.—PASSENGERS DEPARTED FROM SEAPORTS OF THE UNITED STATES FOR FOREIGN COUNTRIES OTHER THAN BRITISH NORTH AMERICA, FISCAL YEAR ENDED JUNE 30, 1909—Continued.

Line of vessels.	Port of destination.	Cabin passengers.							Passengers other than cabin.							Total passengers departed.
		Under 12 years of age.			12 years of age and over.			Total cabin.	Under 12 years of age.			12 years of age and over.			Total other than cabin.	
		Males.	Females.	Total.	Males.	Females.	Total.		Males.	Females.	Total.	Males.	Females.	Total.		
	From Galveston, Tex.:															
Gulf Transport	Liverpool	4	2	6	5	11	16	22								22
Leyland	Do	2	2	4	6	5	11	15								15
North German Lloyd	Bremen	30	25	55	136	187	323	378	26	19	45	277	66	343	388	766
Do	Habana				1		1	1								1
United Steamship Co	Do	13	7	20	57	34	91	111	5	1	6	12	3	15	21	132
Wolvin	Colon				2		2	2								2
	Total, Galveston, Tex	49	36	85	207	237	444	529	31	20	51	289	69	358	409	938
	From Hawaii:															
Canadian and Australian Steamship Co.	Australian ports	7	21	28	73	45	118	146	2	2	4	37	6	43	47	193
Pacific Mail	Hongkong	5	2	7	23	20	43	50	38	46	84	773	39	812	896	946
Do	Kolbe					2	2	2	13	22	35	190	24	214	249	251
Do	West Indies				5	1	6	6								6
Do	Nagasaki											1		1	1	1
Do	Shanghai				3		3	3				1		1	1	4
Do	Yokohama	17	9	26	125	70	195	221	167	145	312	624	258	882	1,194	1,415
Toyo Kisen Kaisha Steamship Co.	Hongkong				6	7	13	13		2	2	6	1	7	9	22
Do	Kobe				4	3	7	7	40	38	78	116	39	155	233	240
Do	Nagasaki				1	1	2	2								2
Do	Shanghai				1	1	2	2								2
Do	Yokohama	4		4	36	29	65	69	289	246	535	780	348	1,128	1,663	1,732
	Total, Hawaii	33	32	65	277	179	456	521	549	501	1,050	2,528	715	3,243	4,293	4,814
	From Key West, Fla.:															
P. and O. Steamship Co	Habana	499	435	934	9,764	4,356	14,120	15,054								15,054
Do	Nassau	31	33	64	605	535	1,140	1,204								1,204
Tampa and Habana Steamship Co.	Habana	55	48	103	667	241	908	1,011								1,011

Sailing vessels	Bemini, British West Indies.	......	......	......	24	1	25	25	......	......	......	......	......	......	......	25
Do	Bonacca, Honduras	......	2	2	11	4	15	17	......	......	......	......	......	......	......	17
Do	Georgetown, British West Indies.	3	2	5	3	4	7	12	......	......	......	......	......	......	......	12
Do	Grand Cayman, British West Indies.	......	......	......	20	......	20	20	......	......	......	......	......	......	......	20
Do	Habana	......	......	......	1	......	1	1	......	......	......	......	......	......	......	1
Do	Nassau	23	21	44	462	188	650	694	......	......	......	......	......	......	......	694
	Total, Key West, Fla	611	541	1,152	11,557	5,329	16,886	18,038	......	......	......	......	......	......	......	18,038
	From Mobile, Ala.:															
Camoyo, McConnell Co	Bocas del Toro	......	......	......	2	......	2	2	......	......	......	......	......	......	......	2
Hubbard, Zemurraya Co	La Ceiba, Honduras	......	......	......	21	8	29	29	......	......	......	......	......	......	......	29
J. B. Cepalu Co	Do	......	......	......	1	......	1	1	......	......	......	......	......	......	......	1
United Fruit Co	Bocas del Toro	......	......	......	6	3	9	9	......	......	......	......	......	......	......	9
	Total, Mobile, Ala	......	......	......	30	11	41	41	......	......	......	......	......	......	......	41
	From New Bedford, Mass.:															
Sailing vessels	Cape Verde Islands	......	6	6	35	6	41	47	1	8	9	188	9	197	206	253
	From New York, N. Y.:															
American	Southampton	268	112	380	3,578	1,524	5,102	5,482	954	409	1,363	9,918	4,260	14,178	15,541	21,023
Anchor	Glasgow	347	340	687	2,621	3,345	5,966	6,653	524	409	933	5,364	2,175	7,539	8,472	15,125
Atlantic transport	London	132	87	219	1,773	1,180	2,953	3,172	......	......	......	......	......	......	......	3,172
Bermuda-Atlantic	Bermuda	24	29	53	1,824	1,833	3,657	3,710	......	......	......	......	......	......	......	3,710
Booth	South America	97	35	132	95	50	145	277	30	13	43	31	21	52	95	372
Clyde	West Indian ports	16	12	28	270	104	374	402	......	......	......	......	......	......	......	402
Cunard	Mediterranean ports	120	89	209	2,456	1,269	3,725	3,934	1,008	930	1,938	8,540	4,903	13,443	15,381	19,315
Do	Queenstown and Liverpool	862	455	1,317	13,211	9,168	22,379	23,696	1,427	860	2,287	10,876	6,980	17,856	20,143	43,839
Fabre	Marseille	2	4	6	92	125	217	223	23	16	39	81	53	134	173	396
Do	Naples	6	7	13	84	107	191	204	556	453	1,009	5,178	2,092	7,270	8,279	8,483
French	Havre	582	411	993	5,356	3,602	8,958	9,951	1,627	1,097	2,724	14,320	10,285	24,605	27,329	37,280
Hamburg-American	Cherbourg, France	135	90	225	1,167	737	1,904	2,129	167	78	245	637	422	1,059	1,304	3,433
Do	Genoa	85	48	133	484	345	829	962	78	56	134	271	212	483	617	1,579
Do	Hamburg, Germany	1,196	799	1,995	10,886	8,178	19,064	21,059	1,567	1,004	2,571	5,417	4,115	9,532	12,103	33,162
Do	Naples	231	145	376	1,928	1,255	3,183	3,559	125	73	198	784	534	1,318	1,516	5,075
Do	Plymouth, England	90	64	154	793	473	1,266	1,420	4	3	7	414	309	723	730	2,150
Do	South America	130	74	204	1,042	689	1,731	1,935	14	8	22	124	72	196	218	2,153
Do	Spain	5	3	8	98	68	166	174	......	......	......	24	14	38	38	212
Do	West Indies	71	46	117	577	393	970	1,087	4	3	7	64	38	102	109	1,196
Holland-American	Rotterdam	400	464	864	3,652	4,385	8,037	8,901	832	951	1,783	5,826	2,613	8,439	10,222	19,123
Lamport & Holt	South America	117	63	180	427	175	602	782	192	106	298	386	159	545	843	1,625
La Veloce	Mediterranean ports	136	44	180	170	38	208	388	4,269	497	4,766	936	183	1,119	5,885	6,273
Do	South America	......	......	......	......	......	......	......	1	......	1	6	......	6	7	7
Munson	West Indies	35	41	76	377	224	601	677	......	......	......	......	......	......	......	677
Navigazione Generale Italiana.	Mediterranean ports	76	62	138	590	324	914	1,052	768	417	1,185	11,862	1,184	13,046	14,231	15,283
North German Lloyd	Bremen	1,204	605	1,809	13,886	6,944	20,830	22,639	3,741	1,872	5,613	17,442	8,722	26,164	31,777	54,416
Do	Genoa and Naples	229	114	343	3,734	1,865	5,599	5,942	1,214	607	1,821	9,084	4,541	13,625	15,446	21,388

TABLE XXII.—PASSENGERS DEPARTED FROM SEAPORTS OF THE UNITED STATES FOR FOREIGN COUNTRIES OTHER THAN BRITISH NORTH AMERICA, FISCAL YEAR ENDED JUNE 30, 1909—Continued.

Line of vessels.	Port of destination.	Cabin passengers.							Passengers other than cabin.							Total passengers departed.
		Under 12 years of age.			12 years of age and over.			Total cabin.	Under 12 years of age.			12 years of age and over.			Total other than cabin.	
		Males.	Females.	Total.	Males.	Females.	Total.		Males.	Females.	Total.	Males.	Females.	Total.		
	From New York, N. Y.—Con.															
New York and Porto Rico Steamship Co.	West Indies and South America.	69	64	133	1,385	759	2,144	2,277	2	2	4	49	9	58	62	2,339
Panama Railroad Steamship Line.	Panama	328	320	648	3,943	1,518	5,461	6,109	34	45	79	315	197	512	591	6,700
Quebec Steamship Co.	Quebec	9	6	15	122	198	320	335	......	......	......	......	......	......	......	335
Do.	Bermuda	139	67	206	3,375	3,706	7,081	7,287	5	4	9	165	220	385	394	7,681
Do.	West Indies	33	28	61	380	326	706	767	29	35	64	306	167	473	537	1,304
Red D	Do.	51	51	102	735	293	1,028	1,130	......	......	......	......	......	......	......	1,130
Do.	South America	20	16	36	234	95	329	365	......	......	......	......	......	......	......	365
Red Star	Antwerp	496	209	705	4,241	1,814	6,055	6,760	2,483	1,064	3,547	11,261	4,864	16,125	19,672	26,432
Royal Dutch West Indian Mail.	West Indies and South America.	28	7	35	384	150	534	569	......	......	......	......	......	......	......	569
Royal Mail Steam Packet Co.	Southampton	1	......	1	38	22	60	61	......	......	......	......	......	......	......	61
Do.	West Indies and South America.	50	56	106	1,337	723	2,060	2,166	......	......	......	67	2	69	69	2,235
Russia-American	Libau	28	15	43	129	86	215	258	376	275	651	2,407	1,815	4,222	4,873	5,131
Scandinavian-American	Denmark	94	76	170	545	747	1,292	1,462	173	180	353	1,154	749	1,903	2,256	3,718
Do.	Norway	119	88	207	434	632	1,066	1,273	486	491	977	2,974	1,835	4,809	5,786	7,059
Do.	Sweden	6	7	13	8	24	32	45	336	281	617	1,219	1,350	2,569	3,186	3,231
Secula-American	Italy	23	13	36	68	48	116	152	1,112	797	1,909	8,376	1,412	9,788	11,697	11,849
Spanish	Mediterranean ports	18	18	36	233	109	342	378	82	36	118	2,250	171	2,421	2,539	2,917
Do.	Mexico and West Indies	14	16	30	133	86	219	249	1	......	1	11	......	11	12	261
Trinidad	British West Indies	5	6	11	78	52	130	141	......	......	......	......	......	......	......	141
Ward	West Indies and Mexico	412	173	585	6,922	1,713	8,635	9,220	254	116	370	3,792	1,135	4,927	5,297	14,517
White Star	Liverpool	530	304	834	7,171	4,681	11,852	12,686	857	437	1,294	6,333	3,557	9,890	11,184	23,870
Do.	Southampton	411	234	645	6,361	3,784	10,145	10,790	1,011	497	1,508	9,629	5,290	14,919	16,427	27,217
Do.	Mediterranean ports	144	86	230	2,128	1,192	3,320	3,550	296	154	450	4,151	2,128	6,279	6,729	10,279
Wilson	Hull	2	1	3	6	20	26	29	......	......	......	......	......	......	......	29
	Total, New York, N. Y.	9,626	6,104	15,730	111,561	71,178	182,739	198,469	26,662	14,276	40,938	162,044	78,788	240,832	281,770	480,239

	From New Orleans, La.:															
Austro-American	Mediterranean ports				9	1	10	10								10
Bluefield Steamship Co.	Bluefields		3	3	99	31	130	133				5	1	6	6	139
Independent Steamship Co.	Ceiba, British Honduras		3	3	83	22	105	108								108
Leyland	Bremen	2		2	1	1	2	4								4
Do.	Havre		1	1	5	8	13	14								14
Do.	London and Liverpool	3	8	11	20	52	72	83								83
Do.	Manchester				1		1	1								1
Do.	Rotterdam	2	2	4	5	5	10	14								14
Morgan	Habana	40	29	69	790	360	1,150	1,219	1		1	99	5	104	105	1,324
Oteri Steamship Co.	Ceiba				26	3	29	29								29
Texas Transport and Terminal Co.	France	3		3	16	17	33	36		1	1	65	6	71	72	108
Do.	Italy	5	2	7	19	10	29	36	32	30	62	367	108	475	537	573
United Fruit Co.	Central America and West Indies.	38	37	75	1,255	514	1,769	1,844								1,844
Miscellaneous	Canary Islands	1	4	5	2	2	4	9								9
Do.	Central America and Cuba.	3	1	4	18	13	31	35								35
Do.	Spain		1	1	1		1	2				2		2	2	4
	Total, New Orleans, La.	97	91	188	2,350	1,039	3,389	3,577	33	31	64	538	120	658	722	4,299
	From Norfolk, Va.:															
Miscellaneous	London				2	3	5	5								5
	From Philadelphia, Pa.:															
Allan	Glasgow	3	5	8	67	47	114	122	8	8	16	26	28	54	70	192
American	Liverpool	96	92	188	940	1,732	2,672	2,860	278	278	556	1,768	1,219	2,987	3,543	6,403
Atlantic Fruit Co.	West Indian ports	2	1	3	49	36	85	88								88
Red Star	Antwerp	12	11	23	234	465	699	722								722
The Italia	Genoa	2	6	8	100	41	141	149	477	395	872	7,428	760	8,188	9,060	9,209
United Fruit Co.	West Indian ports	4	8	12	197	134	331	343								343
	Total, Philadelphia, Pa.	119	123	242	1,587	2,455	4,042	4,284	763	681	1,444	9,222	2,007	11,229	12,673	16,957
	From Porto Rico:															
Compagnie Generale Transatlantic Espanola.	Canary Islands	1	1	2	8	3	11	13				11		11	11	24
Do.	France	7	10	17	17	12	29	46				16	2	18	18	64
Do.	Italy				16	5	21	21				16	5	21	21	42
Do.	Mexico	1		1	18	7	25	26				6	1	7	7	33
Do.	South America	2		2	15	3	18	20				4		4	4	24
Do.	Spain	40	34	74	227	108	335	409		1	1	77	24	101	102	511
Do.	West Indies	6	17	23	120	40	160	183	2	2	4	67	15	82	86	269
Compagnie Generale Transatlantic Paquebit François.	France	5	2	7	13	8	21	28				4		4	4	32
Do.	West Indies	19	27	46	162	90	252	298	65	60	125	394	176	570	695	993
Hamburg-American	Hamburg				5	3	8	8								8
Do.	Jamaica				30	6	36	36				7	5	12	12	48
Do.	West Indies	10	10	20	136	63	199	219	10	10	20	221	107	328	348	567
Do.	South America	1	1	2	2	2	4	6								6

TABLE XXII.—PASSENGERS DEPARTED FROM SEAPORTS OF THE UNITED STATES FOR FOREIGN COUNTRIES OTHER THAN BRITISH NORTH AMERICA, FISCAL YEAR ENDED JUNE 30, 1909—Continued.

Line of vessels.	Port of destination.	Cabin passengers.							Passengers other than cabin.							Total passengers departed.
		Under 12 years of age.			12 years of age and over.			Total cabin.	Under 12 years of age.			12 years of age and over.			Total other than cabin.	
		Males.	Females.	Total.	Males.	Females.	Total.		Males.	Females.	Total.	Males.	Females.	Total.		
	From Porto Rico—Continued.															
La Veloce	Genoa	......	......	......	1	......	1	1	......	......	......	1	......	1	1	2
Red D	South America	7	......	7	13	4	17	24	......	......	......	9	4	13	13	37
Do	West Indies	......	......	......	7	......	7	7	1	2	3	5	1	6	9	16
Vapores Cubanos Sabrinos de Herrera.	Do	24	38	62	473	219	692	754	70	74	144	817	338	1,155	1,299	2,053
Vapores Espanola	Spain	2	3	5	48	20	68	73	1	1	2	11	......	11	13	86
Do	West Indies	......	......	......	4	......	4	4	......	......	......	2	......	2	2	6
Sailing vessels	Do	......	......	......	2	1	3	3	......	......	......	......	......	......	......	3
	Total, Porto Rico	125	143	268	1,317	594	1,911	2,179	149	150	299	1,668	678	2,346	2,645	4,824
	From Portland, Me.:															
Allan	Glasgow	1	2	3	12	13	25	28	2	8	10	57	15	72	82	110
Dominion	Liverpool	......	......	......	3	2	5	5	64	43	107	916	413	1,329	1,436	1,441
	Total, Portland, Me	1	2	3	15	15	30	33	66	51	117	973	428	1,401	1,518	1,551
	From Puget Sound, Wash.:															
Alfred Holt & Co	China	......	......	......	1	......	1	1	......	......	......	203	1	204	204	205
Do	Japan	......	......	......	......	......	......	......	......	......	......	126	2	128	128	128
Great Northern	China	......	......	......	76	112	188	188	......	......	......	164	......	164	164	352
Do	Japan	......	......	......	50	38	88	88	......	......	......	29	......	29	29	117
Nippon Yusen Kaisha Co	China	......	1	1	118	51	169	170	......	......	......	283	3	286	286	456
Do	Japan	......	2	2	154	20	174	176	4	......	4	1,131	77	1,208	1,212	1,388
Miscellaneous	China	......	......	......	2	......	2	2	......	......	......	47	......	47	47	49
Do	Japan	......	......	......	......	......	......	......	......	1	1	43	......	43	44	44
	Total, Puget Sound, Wash.	......	3	3	401	221	622	625	4	1	5	2,026	83	2,109	2,114	2,739

	From San Diego, Cal.:																
Steamship St. Dennis	Ensenada, Mexico	10	18	28	292	120	412	440									440
Miscellaneous	Do	6	4	10	168	48	216	226									226
	Total, San Diego, Cal	16	22	38	460	168	628	666									666
	From San Francisco, Cal.:																
Oceanic	Society Islands	3	3	6	246	140	386	392	12	9	21	289	43	332	353		745
Oriental	China	5	6	11	172	85	257	268				205	1	206	206		474
Do	Japan				106	82	188	188				606	30	636	636		824
Oriental and Occidental	China	2		2	5	3	8	10	1		1	279	1	280	281		291
Do	Japan				12	12	24	24				132		132	132		156
Pacific Mail	Central America	1	3	4	165	56	221	225				90	14	104	104		329
Do	China	31	24	55	756	680	1,436	1,491				4,943	14	4,957	4,957		6,448
Do	Japan	21	9	30	366	347	713	743	4	1	5	1,382	30	1,412	1,417		2,160
Toyo Kisen Kaisha Steamship Co.	China		1	1	107	77	184	185				183	2	185	185		370
Do	Japan	3	3	6	91	50	141	147	8	5	13	895	16	911	924		1,071
Sailing vessels	Central America				1		1	1									1
Do	Sydney				12	2	14	14									14
	Total, San Francisco, Cal.	66	49	115	2,039	1,534	3,573	3,688	25	15	40	9,004	151	9,155	9,195		12,883
	From Tampa, Fla.:																
Sailing vessels	Central America and West Indies.	2		2	28	9	37	39									39
	Grand total	11,200	7,581	18,781	136,781	89,238	226,019	244,800	30,249	17,400	47,649	199,851	94,152	294,003	341,652		586,452

TABLE XXII.—PASSENGERS DEPARTED FROM SEAPORTS OF THE UNITED STATES FOR FOREIGN COUNTRIES OTHER THAN BRITISH NORTH AMERICA, FISCAL YEAR ENDED JUNE 30, 1909—Continued.

RECAPITULATION.

PORT OF DEPARTURE.	Cabin passengers.							Passengers other than cabin.							Total passengers departed.
	Under 12 years of age.			12 years of age and over.			Total cabin.	Under 12 years of age.			12 years of age and over.			Total other than cabin.	
	Males.	Females.	Total.	Males.	Females.	Total.		Males.	Females.	Total.	Males.	Females.	Total.		
Baltimore, Md	87	69	156	709	814	1,523	1,679	162	148	310	1,074	548	1,622	1,932	3,611
Boston, Mass	368	360	728	4,188	5,444	9,632	10,360	1,804	1,518	3,322	10,296	10,556	20,852	24,174	34,534
Brunswick, Ga	......	......	......	18	2	20	20	......	......	......	1	......	1	1	21
Galveston, Tex	49	36	85	207	237	444	529	31	20	51	289	69	358	409	938
Hawaii	33	32	65	277	179	456	521	549	501	1,050	2,528	715	3,243	4,293	4,814
Key West, Fla	611	541	1,152	11,557	5,329	16,886	18,038	......	......	......	......	......	......	......	18,038
Mobile, Ala	......	......	......	30	11	41	41	......	......	......	......	......	......	......	41
New Bedford, Mass	......	6	6	35	6	41	47	1	8	9	188	9	197	206	253
New York, N. Y	9,626	6,104	15,730	111,561	71,178	182,739	198,469	26,662	14,276	40,938	162,044	78,788	240,832	281,770	480,239
New Orleans, La	97	91	188	2,350	1,039	3,389	3,577	33	31	64	538	120	658	722	4,299
Norfolk, Va	......	......	......	2	3	5	5	......	......	......	......	......	......	......	5
Philadelphia, Pa	119	123	242	1,587	2,455	4,042	4,284	763	681	1,444	9,222	2,007	11,229	12,673	16,957
Porto Rico	125	143	268	1,317	594	1,911	2,179	149	150	299	1,668	678	2,346	2,645	4,824
Portland, Me	1	2	3	15	15	30	33	66	51	117	973	428	1,401	1,518	1,551
Puget Sound, Wash	......	3	3	401	221	622	625	4	1	5	2,026	83	2,109	2,114	2,739
San Diego, Cal	16	22	38	460	168	628	666	......	......	......	......	......	......	......	666
San Francisco, Cal	66	49	115	2,039	1,534	3,573	3,688	25	15	40	9,004	151	9,155	9,195	12,883
Tampa, Fla	2	......	2	28	9	37	39	......	......	......	......	......	......	......	39
Total	11,200	7,581	18,781	136,781	89,238	226,019	244,800	30,249	17,400	47,649	199,851	94,152	294,003	341,652	586,452
Shipped by—															
Steamers	11,162	7,540	18,702	135,968	88,955	224,923	243,625	30,248	17,392	47,640	199,660	94,143	293,803	341,443	585,068
Sailing vessels	38	41	79	813	283	1,096	1,175	1	8	9	191	9	200	209	1,384

TOTAL PASSENGERS DEPARTED.																
1890	5,297	4,099	9,396	66,120	30,359	96,489	105,885	8,698	7,532	16,230	83,110	32,914	116,024	132,254	238,139
1891	5,604	3,756	9,360	65,056	32,692	97,748	107,108	9,268	6,004	15,272	89,034	35,092	124,126	139,398	246,506
1892	5,717	3,706	9,423	61,763	33,966	95,729	105,152	9,999	5,969	15,968	96,834	38,602	135,436	151,404	256,556
1893	5,503	3,727	9,230	57,904	27,995	85,899	95,129	8,352	5,444	13,796	88,315	33,384	121,699	135,495	230,624
1894	7,622	4,834	12,456	70,864	38,611	109,475	121,931	15,798	9,307	25,105	112,941	52,794	165,735	190,840	312,771
1895	5,828	3,812	9,640	64,887	38,366	103,253	112,893	17,257	10,612	27,869	123,845	64,951	188,796	216,665	329,558
1898 [a]	5,111	3,780	8,891	54,533	31,130	85,663	94,554	10,001	5,789	15,790	78,621	36,446	115,067	130,857	225,411
1899	6,418	4,624	11,042	76,106	41,099	117,205	128,247	8,836	6,447	15,283	78,061	34,417	112,478	127,761	256,008
1900	10,315	7,443	17,758	87,041	51,096	138,137	155,895	13,906	9,095	23,001	78,230	36,268	114,498	137,499	293,394
1901	7,646	6,326	13,972	84,853	49,739	134,592	148,564	10,968	8,042	19,010	96,797	42,353	139,150	158,160	306,724
1902	7,757	5,277	13,034	91,308	53,770	145,078	158,112	12,067	8,256	20,323	99,966	48,359	148,325	168,648	326,760
1903	6,965	4,994	11,959	99,432	57,293	156,725	168,684	13,395	9,082	22,477	132,894	51,206	184,100	206,577	375,261
1904	8,235	6,112	14,347	109,469	60,797	170,266	184,613	18,249	13,086	31,335	209,191	83,065	292,256	323,591	508,204
1905	8,544	6,231	14,775	119,287	67,146	186,433	201,208	22,104	15,335	37,439	210,270	87,234	297,504	334,943	536,151
1906	8,798	6,060	14,858	125,340	74,471	199,811	214,669	16,591	11,144	27,735	179,869	74,464	254,333	282,068	496,737
1907	13,008	8,336	21,344	130,276	73,273	203,549	224,893	25,704	16,203	41,907	214,997	88,085	303,082	344,989	569,882
1908	13,489	8,181	21,670	136,981	78,130	215,111	236,781	63,751	27,430	91,181	378,246	168,478	546,724	637,905	874,686
1909	11,200	7,581	18,781	136,781	89,238	226,019	244,800	30,249	17,400	47,649	199,851	94,152	294,003	341,652	586,452

[a] For 1896 and 1897 no figures are available.

TABLE A.—JAPANESE APPLIED FOR ADMISSION, ADMITTED, DEBARRED, DEPORTED, AND DEPARTED, FISCAL YEARS ENDED JUNE 30, 1908 AND 1909.

	1908.		1909.	
	Continental U. S.	Hawaii.	Continental U. S.	Hawaii.
Applications for admission	10,187	8,754	2,644	1,539
Admitted	9,544	8,694	2,432	1,493
Debarred from entry	643	60	212	46
Deported after entry	389	....	288	3
Departures	4,796	4,392	5,004	2,378

TABLE B.—INCREASE OR DECREASE OF JAPANESE POPULATION BY IMMIGRATION AND EMIGRATION, FISCAL YEARS ENDED JUNE 30, 1908 AND 1909, BY MONTHS.

Month.	Continental United States.			Hawaii.		
	Admitted.	Departed.	Increase(+) or decrease (−).	Admitted.	Departed.	Increase(+) or decrease (−).
1907-8.						
July	1,158	113	+1,045	1,073	1,523	− 450
August	1,153	292	+ 861	629	535	+ 94
September	1,060	285	+ 775	957	547	+ 410
October	1,136	986	+ 150	603	328	+ 275
November	1,170	812	+ 358	1,086	117	+ 969
December	717	580	+ 137	580	174	+ 406
January	495	273	+ 222	924	77	+ 847
February	468	311	+ 157	856	90	+ 766
March	491	386	+ 105	590	273	+ 317
April	602	289	+ 313	431	241	+ 190
May	648	213	+ 435	630	277	+ 353
June	446	256	+ 190	335	210	+ 125
Total	9,544	4,796	+4,748	8,694	4,392	+4,302
1908-9.						
July	329	271	+ 58	254	231	+ 23
August	223	339	− 116	166	352	− 186
September	199	357	− 158	80	166	− 86
October	229	823	− 594	144	323	− 179
November	148	780	− 632	144	128	+ 16
December	199	737	− 538	131	128	+ 3
January	146	284	− 138	137	55	+ 82
February	120	273	− 153	67	88	− 21
March	145	288	− 143	100	225	− 125
April	242	306	− 64	75	297	− 222
May	234	238	− 4	110	234	− 124
June	218	308	− 90	85	151	− 66
Total	2,432	5,004	−2,572	1,493	2,378	− 885

TABLE C.—OCCUPATIONS OF JAPANESE ADMITTED AND DEPARTED, FISCAL YEARS ENDED JUNE 30, 1908 AND 1909.

Occupation.	1908.				1909.			
	Continental United States.		Hawaii.		Continental United States.		Hawaii.	
	Admitted.	Departed.	Admitted.	Departed.	Admitted.	Departed.	Admitted.	Departed.
Actors	54	6	....	....	10	20	3	1
Clergy	37	18	18	4	14	25	14	11
Government officials	45	34	3	....	45	42	....	1
Teachers	50	16	8	1	24	15	18	2
Other professional	70	143	5	2	65	94	18	7
Clerks	154	66	32	3	56	64	12	7
Farmers	518	698	11	1	69	492	....	3
Merchants	951	578	87	31	274	552	21	24
Restaurant and hotel keepers	130	70	19	....	64	67	2	2
Students	2,018	153	80	5	255	239	23	15
No occupation, including women and children	1,299	832	2,760	810	690	747	149	714
Not stated	177	119	26	7	153	684	20	5
Total nonlaborers according to Rule 21j	5,503	2,733	2,994	864	1,719	3,041	280	792
Barbers	28	11	34	....	9	12	6	1
Carpenters	27	21	11	2	12	25	9	4
Tailors	36	38	5	....	5	7	6	2
Other artisans	99	164	14	1	7	66	13	....
Cooks	96	69	9	8	60	148	13	9
Farm laborers	1,031	60	5,417	3,494	206	246	1,050	1,546
Gardeners	18	10	....	....	6	13	....	....
Laborers	1,153	1,077	21	18	245	344	10	5
Servants	305	300	29	3	114	133	74	11
Not stated	1,248	313	160	2	49	969	32	8
Total laborers according to Rule 21j	4,041	2,063	5,700	3,528	713	1,963	1,213	1,586
Grand total	9,544	4,796	8,694	4,392	2,432	5,004	1,493	2,378

TABLE D.—STATISTICS OF IMMIGRATION AND EMIGRATION OF JAPANESE, COLLECTED BY THE UNITED STATES GOVERNMENT, COMPARED WITH THOSE REPORTED BY THE JAPANESE GOVERNMENT, FISCAL YEAR ENDED JUNE 30, 1909.

From Japan.	Reported by Japan.	Reported by U. S.	To Japan.	Reported by Japan.	Reported by U. S.
To Hawaii	1,538	1,530	From Hawaii	3,758	2,378
To Continental U. S.	1,952	2,029	From Continental U. S.	4,920	5,004
Total	[a] 3,490	[a] 3,559	Total	[b] 8,678	[a] 7,382

[a] Embarked within the year.

[b] Debarked within the year.

TABLE E.—JAPANESE ARRIVALS IN CONTINENTAL UNITED STATES, FISCAL YEAR ENDED JUNE 30, 1909, SHOWING VARIOUS DETAILS BEARING ON THE JAPANESE AGREEMENT.

	In possession of proper passports.															Without proper passport.			With and without proper passport.		
	Entitled to passports under Japanese agreement.											Not entitled to passport: Not former residents, parents, wives, or children of residents, nor settled agriculturists—Laborers.	Total with passports.								
	Former residents.			Parents, wives, and children of residents.			Settled agriculturists.			Not former residents, parents, wives, or children of residents, nor settled agriculturists—Nonlaborers.	Total entitled to passports.										
	Nonlaborers.	Laborers.	Total.	Nonlaborers.	Laborers.	Total.	Nonlaborers.	Laborers.	Total.				Nonlaborers.	Laborers.	Total.	Nonlaborers.	Laborers.	Total.	Nonlaborers.	Laborers.	Grand total.
Total applications	464	304	768	686	256	942	....	....	....	493	2,203	204	1,643	764	2,407	114	123	a 237	1,757	887	2,644
Disposition:																					
Admitted	459	295	754	675	233	908	....	....	....	483	2,145	158	1,617	686	2,303	102	27	129	1,719	713	2,432
Debarred	5	9	14	11	23	34	....	....	....	10	58	46	26	78	104	12	96	108	38	174	212
Sex:																					
Male	427	295	722	128	106	234	....	....	....	432	1,388	184	987	585	1,572	98	107	205	1,085	692	1,777
Female	37	9	46	558	150	708	....	....	....	61	815	20	656	179	835	16	16	32	672	195	867
Came from:																					
Japan	407	249	656	680	251	931	....	....	....	364	1,951	111	1,451	611	2,062	17	6	23	1,468	617	2,085
Hawaii	8	2	10	6	3	9	....	....	....	9	28	....	23	5	28	11	9	20	34	14	48
Canada	25	44	69	....	2	2	....	....	....	35	106	88	60	134	194	50	77	127	110	211	321
Mexico	8	3	11	....	....	....	....	....	....	9	20	....	17	3	20	26	20	46	43	23	66
Other countries	16	6	22	....	....	....	....	....	....	76	98	5	92	11	103	10	11	21	102	22	124
Arrived via:																					
Seattle	255	229	484	532	182	714	....	....	....	253	1,451	89	1,040	500	1,540	3	6	9	1,043	506	1,549
San Francisco	145	25	170	149	70	219	....	....	....	99	488	22	393	117	510	26	13	39	419	130	549
Canada	41	45	86	5	4	9	....	....	....	56	151	90	102	139	241	54	78	132	156	217	373
Mexico	7	3	10	....	....	....	....	....	....	9	19	....	16	3	19	25	18	43	41	21	62
Other places	16	2	18	....	....	....	....	....	....	76	94	3	92	5	97	6	8	14	98	13	111

Resided in continental United States:																				
After January 1, 1907	382	216	598	...	...	...	...	...	...	...	598	...	382	216	598	21	31	52	403	247	650
Before January 1, 1907	82	88	170	...	...	...	...	...	...	...	170	...	82	88	170	12	18	30	94	106	200
Total former residents	464	304	768	...	...	...	...	...	...	...	768	...	464	304	768	33	49	82	497	353	850
How related to resident:																				
Parents	...	...	...	6	8	14	...	...	...	...	14	...	6	8	14	...	...	...	6	8	14
Wives	...	...	...	511	147	658	...	...	...	...	658	...	511	147	658	5	2	7	516	149	665
Children	...	...	...	169	101	270	...	...	...	...	270	...	169	101	270	2	1	3	171	102	273
Total parents, wives, and children	...	...	...	686	256	942	...	...	...	...	942	...	686	256	942	7	3	10	693	259	952
Kind of passport:																				
Limited to United States	435	290	725	686	256	942	...	...	...	419	2,086	201	1,540	747	2,287	...	...	...	...	...	...
Limited to United States and other countries	13	6	19	...	...	...	...	...	...	39	58	2	52	8	60	...	...	...	...	...	...
Limited to other countries than the United States	4	...	4	...	...	...	...	...	...	4	8	...	8	...	8	...	...	...	...	...	...
Unlimited	12	8	20	...	...	...	...	...	...	31	51	1	43	9	52	...	...	...	...	...	...
Passports dated during:																				
Month of arrival	15	1	16	7	1	8	...	...	...	26	50	3	48	5	53	...	...	...	...	...	...
First month preceding	120	35	155	166	31	197	...	...	...	155	507	29	441	95	536	...	...	...	...	...	...
Second month preceding	125	51	176	211	98	309	...	...	...	101	586	26	437	175	612	...	...	...	...	...	...
Third month preceding	55	48	103	137	53	190	...	...	...	51	344	22	243	123	366	...	...	...	...	...	...
Fourth month preceding	46	33	79	73	30	103	...	...	...	28	210	11	147	74	221	...	...	...	...	...	...
Fifth month preceding	25	41	66	40	16	56	...	...	...	24	146	10	89	67	156	...	...	...	...	...	...
Sixth month preceding	27	35	62	35	18	53	...	...	...	33	148	11	95	64	159	...	...	...	...	...	...
Prior to sixth month, but not before March 14, 1907	23	16	39	15	8	23	...	...	...	44	106	30	82	54	136	...	...	...	...	...	...
Prior to executive order of March 14, 1907	28	44	72	2	1	3	...	...	...	31	106	62	61	107	168	...	...	...	...	...	...
Occupations mentioned in passports:																				
Nonlaboring occupations	299	137	436	343	106	449	...	...	...	274	1,159	56	916	299	1,215	...	...	...	...	...	...
Laboring occupations	8	63	71	11	27	38	...	...	...	4	113	28	23	118	141	...	...	...	...	...	...
Occupations not mentioned in passports	157	104	261	332	123	455	...	...	...	215	931	120	704	347	1,061	...	...	...	...	...	...

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[a] Fifty-three nonlaborers and 54 laborers held passports limited to Hawaii, Canada, or Mexico; 1 laborer's passport was not genuine; 3 nonlaborers and 13 laborers were not rightfully in possession of passports; 1 nonlaborer and 1 laborer had passports issued by minister to Mexico; 3 laborers held otherwise improper passports; 44 nonlaborers and 43 laborers claimed to have lost or left passport held at time of departure from Japan; 10 nonlaborers and 8 laborers were not in possession of any kind of passport at time of leaving Japan; 1 nonlaborer without a passport was a United States employee, and 2 nonlaborers were United States citizens.

TABLE F.—JAPANESE ARRIVALS IN HAWAII, FISCAL YEAR ENDED JUNE 30, 1909, SHOWING VARIOUS DETAILS BEARING ON THE JAPANESE AGREEMENT.

	In possession of passports.															Without passport.			With and without passport.		
	Entitled to passports under Japanese agreement.									Not entitled to passport.			Total with passports.								
	Former residents.			Parents, wives, and children of residents.			Total entitled to passports.			Not former residents, nor parents, wives, or children of residents.											
	Nonlaborers.	Laborers.	Total.	Nonlaborers.	Laborers.	Total.	Nonlaborers.	Laborers.	Total.	Nonlaborers.	Laborers.	Total.	Nonlaborers.	Laborers.	Total.	Nonlaborers.	Laborers.	Total.	Nonlaborers.	Laborers.	Grand total.
Total applications	65	201	266	150	959	1,109	215	1.160	1,375	74	79	153	289	1,239	1,528	2	9	[a]11	291	1,248	1,539
Disposition:																					
Admitted	65	201	266	139	934	1,073	204	1,135	1,339	74	70	144	278	1,205	1,483	2	8	10	280	1,213	1,493
Debarred				11	25	36	11	25	36		9	9	11	34	45		1	1	11	35	46
Sex:																					
Male	42	136	178	39	222	261	81	358	439	56	61	117	137	419	556	2	7	9	139	426	565
Female	23	65	88	111	737	848	134	802	936	18	18	36	152	820	972		2	2	152	822	974
Resided in Hawaii:																					
After January 1, 1907	52	156	208				52	156	208				52	156	208	2	2	4	54	158	212
Before January 1, 1907	13	45	58				13	45	58				13	45	58		1	1	13	46	59
Total, former residents	65	201	266				65	201	266				65	201	266	2	3	5	67	204	271
How related to resident:																					
Parents				3	43	46	3	43	46				3	43	46				3	43	46
Wives				68	690	758	68	690	758				68	690	758		2	2	68	692	760
Children				79	226	305	79	226	305				79	226	305		1	1	79	227	306
Total, parents, wives, and children				150	959	1,109	150	959	1,109				150	959	1,109		3	3	150	962	1,112
Kind of passport:																					
Limited to Hawaii	62	201	263	150	959	1,109	212	1,160	1,372	61	78	139	273	1,238	1,511						
Limited to Hawaii and United States										12	1	13	12	1	13						
Limited to United States	2		2				2		2	1		1	3		3						
Limited to United States and other countries	1		1				1		1				1		1						

Passports dated during—																					
Month of arrival	2	2	4	3	9	12	5	11	16	9	......	9	14	11	25	......	......	......	......	......	......
First month preceding	31	73	104	51	372	423	82	445	527	44	9	53	126	454	580	......	......	......	......	......	......
Second month preceding	12	66	78	56	350	406	68	416	484	12	4	16	80	420	500	......	......	......	......	......	......
Third month preceding	9	27	36	25	115	140	34	142	176	5	23	28	39	165	204	......	......	......	......	......	......
Fourth month preceding	6	6	12	6	47	53	12	53	65	1	9	10	13	62	75	......	......	......	......	......	......
Fifth month preceding	2	12	14	7	38	45	9	50	59	1	15	16	10	65	75	......	......	......	......	......	......
Sixth month preceding	3	13	16	2	22	24	5	35	40	1	17	18	6	52	58	......	......	......	......	......	......
Prior to sixth month but not before March 14, 1907	......	1	1	......	6	6	......	7	7	1	2	3	1	9	10	......	......	......	......	......	......
Prior to executive order of March 14, 1907	......	1	1	......	......	......	......	1	1	......	......	......	......	1	1	......	......	......	......	......	......
Occupations mentioned in passports:																					
Nonlaboring occupations	49	54	103	88	495	583	137	549	686	64	28	92	201	577	778	......	......	......	......	......	......
Laboring occupations	2	111	113	1	231	232	3	342	345	2	43	45	5	385	390	......	......	......	......	......	......
Occupations not mentioned in passports	14	36	50	61	233	294	75	269	344	8	8	16	83	277	360	......	......	......	......	......	......

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[a] Four laborers claimed to have lost or left passport held at time of departure from Japan; 5 laborers were not in possession of any kind of passport at time of leaving Japan; 1 nonlaborer was a United States resident visiting Hawaii via Canada; and 1 nonlaborer was a United States employee.

TABLE 1.—SUMMARY OF CHINESE SEEKING ADMISSION TO THE UNITED STATES, FISCAL YEARS ENDED JUNE 30, 1906–1909, BY CLASSES.

Class alleged.	1906.		1907.		1908.		1909.		
	Admitted.	Deported.	Admitted.	Deported.	Admitted.	Deported.	Admitted.	Deported.	Escaped.
United States citizens	915	80	929	77	1,609	127	2,530	254	16
Wives of United States citizens	7	......	23	8	37	2	98	2	......
Returning laborers	431	18	765	19	883	36	950	3	......
Returning merchants	660	54	733	52	773	55	947	20	5
Other merchants	121	14	112	15	216	11	292	19	......
Members of merchants' families	391	34	516	77	806	128	1,242	237	10
Students	39	5	122	6	157	3	161	6	......
Travelers	16	......	10	1	13	......	27	......	......
Teachers	12	......	6	......	23	......	14	......	......
Officials	135	......	22	......	83	......	82	......	......
Miscellaneous	5	......	17	4	24	2	52	23	......
Total	2,732	205	3,255	259	4,624	364	6,395	564	31

TABLE 2.—CHINESE SEEKING ADMISSION TO THE UNITED STATES, FISCAL YEAR ENDED JUNE 30, 1909, BY CLASSES AND PORTS.

BORDER CASES.

Class alleged.	Applications.			Disposition.													
				Preliminary.			Final.						Pending June 30, 1909.				Total.
				Rejected.			Admitted.										
	New applications.	Pending July 1, 1908.	Total.	By inspectors.	Appeals dismissed by Department.	Writs dismissed by courts.	By inspectors.	By Department.	By courts.	Total.	Deported.	Escaped.	Before inspectors.	Before Department.	Before courts.	Total.	
United States citizens	310	12	322	51	29	2	257	9	1	267	43	.....	4	4	4	12	322
Wives of United States citizens	.....	2	2	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	1	1	2
Returning laborers	289	.....	289	3	.....	.....	286	2	.....	288	1	.....	.....	.....	.....	.....	289
Returning merchants	209	7	216	9	6	.....	203	2	.....	205	11	.....	.....	.....	.....	.....	216
Other merchants	49	.....	49	1	1	.....	48	.....	.....	48	1	.....	.....	.....	.....	.....	49
Merchants' wives	29	.....	29	3	2	.....	26	1	.....	27	2	.....	.....	.....	.....	.....	29
Merchants' children	183	7	190	50	27	.....	129	12	.....	141	42	.....	6	1	.....	7	190
Students	29	.....	29	2	1	.....	27	.....	.....	27	2	.....	.....	.....	.....	.....	29
Travelers	8	.....	8	.....	.....	.....	8	.....	.....	8	.....	.....	.....	.....	.....	.....	8
Teachers	1	.....	1	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Officials	6	.....	6	.....	.....	.....	6	.....	.....	6	.....	.....	.....	.....	.....	.....	6
Miscellaneous	25	8	33	17	2	5	6	.....	.....	6	17	.....	10	.....	.....	10	33
Total	1,138	36	1,174	136	68	8	997	26	1	1,024	120	.....	20	5	5	30	1,174

TABLE 2.—CHINESE SEEKING ADMISSION TO THE UNITED STATES, FISCAL YEAR ENDED JUNE 30, 1909, BY CLASSES AND PORTS—Cont'd.

SEAPORT CASES.

Class alleged.	Applications.			Disposition.													
				Preliminary.			Final.						Pending June 30, 1909.				Total.
				Rejected.			Admitted.										
	New applications.	Pending July 1, 1908.	Total.	By inspectors.	Appeals dismissed by Department.	Writs dismissed by courts.	By inspectors.	By Department.	By courts.	Total.	Deported.	Escaped.	Before inspectors.	Before Department.	Before courts.	Total.	
United States citizens	2,536	62	2,598	231	103	7	2,252	11	......	2,263	211	16	79	16	13	108	2,598
Wives of United States citizens	104	......	104	12	6	......	97	1	......	98	1	......	4	1	......	5	104
Returning laborers	664	2	666	4	......	......	660	2	......	662	2	......	2	......	......	2	666
Returning merchants	757	12	769	13	7	......	739	3	......	742	9	5	13	......	......	13	769
Other merchants	266	......	266	18	2	......	244	......	......	244	18	......	4	......	......	4	266
Merchants' wives	66	1	67	5	1	......	64	......	......	64	2	......	1	......	......	1	67
Merchants' children	1,253	33	1,286	208	57	......	1,002	8	......	1,010	191	10	67	8	......	75	1,286
Students	139	......	139	5	......	......	134	......	......	134	4	......	1	......	......	1	139
Travelers	19	......	19	......	......	......	19	......	......	19	......	......	......	......	......	......	19
Teachers	15	......	15	......	......	......	13	......	......	13	......	......	2	......	......	2	15
Officials	76	......	76	......	......	......	76	......	......	76	......	......	......	......	......	......	76
Miscellaneous	36	......	36	6	......	......	30	......	......	30	6	......	......	......	......	......	36
A. Y. P. exposition employees	16	......	16	......	......	......	16	......	......	16	......	......	......	......	......	......	16
Total	5,947	110	6,057	502	176	7	5,346	25	......	5,371	444	31	173	25	13	211	6,057

TOTAL.

BY CLASSES.																	
United States citizens	2,846	74	2,920	282	132	9	2,509	20	1	2,530	254	16	83	20	17	120	2,920
Wives of United States citizens	104	2	106	12	6	1	97	1		98	2		4	1	1	6	106
Returning laborers	953	2	955	7			946	4		950	3		2			2	955
Returning merchants	966	19	985	22	13		942	5		947	20	5	13			13	985
Other merchants	315		315	19	3		292			292	19		4			4	315
Merchants' wives	95	1	96	16	3		90	1		91	4		1			1	96
Merchants' children	1,436	40	1,476	250	85		1,131	20		1,151	233	10	73	9		82	1,476
Students	168		168	7	1		161			161	6		1			1	168
Travelers	27		27				27			27							27
Teachers	16		16				14			14			2			2	16
Officials	82		82				82			82							82
Miscellaneous	61	8	69	23	2	5	36			36	23		10			10	69
A. Y. P. exposition employees	16		16				16			16							16
Grand total	7,085	146	7,231	638	245	15	6,343	51	1	6,395	564	31	193	30	18	241	7,231
BY PORTS.																	
San Francisco, Cal	5,067	94	5,161	461	163		4,518	21		4,539	398	31	157	24	12	193	5,161
Seattle, Wash	440	14	454	26	11	7	406	1		407	33		12	1	1	14	454
Honolulu, Hawaii	397	1	398	12	2		382	3		385	9		4			4	398
Sumas, Wash	230	12	242	36	9	3	197	3		200	38				4	4	242
Portal, N. Dak	221	1	222	16	8		202	4		206	10		5	1		6	222
Malone, N. Y	530	20	550	62	38		464	13	1	478	56		11	4	1	16	550
Buffalo, N. Y	3		3				3			3							3
Richford, Vt	152	3	155	22	13	5	129	6		135	16		4			4	155
New York, N. Y	41	1	42	3	1		38			38	4						42
New Orleans, La	2		2				2			2							2
Mexican border	2		2				2			2							2
Grand total	7,085	146	7,231	638	245	15	6,343	51	1	6,395	564	31	193	30	18	241	7,231
Section 6 cases	507		507	18	2		484			484	18		5			5	507
In transit overland	2,589		2,589	12			2,503			2,503	20		66			66	2,589
In transit by water	840	29	869				842			842	1		26			26	869

TABLE 3.—CHINESE CLAIMING AMERICAN CITIZENSHIP ADMITTED, FISCAL YEAR ENDED JUNE 30, 1909, BY PORTS.

Port.	Foreign-born children of natives.	Native born.			Total.
		No record of departure (known as "raw natives").	Record of departure (known as "returning natives").		
			Status as native born determined by U. S. Government previous to present application for admission.	Status not previously determined.	
Seattle, Wash	4	20	67	5	96
San Francisco, Cal	1,103	21	581	325	2,030
Sumas, Wash	1	7	25	12	45
Portal, N. Dak	4	2	19	7	32
Malone, N. Y	....	2	123	5	130
Richford, Vt	....	1	58	1	60
New York, N. Y	1	....	2	1	4
New Orleans, La	....	....	1	....	1
Total continental United States	1,113	53	876	356	2,398
Honolulu, Hawaii	....	....	37	95	132
Grand total	1,113	53	913	451	2,530
BY WHOM ADMITTED.					
Inspection officers	1,108	50	908	445	2,511
Department	5	3	4	6	18
Courts	....	....	1	....	1

TABLE 4.—APPEALS TO DEPARTMENT FROM EXCLUDING DECISIONS UNDER CHINESE-EXCLUSION LAWS, FISCAL YEAR ENDED JUNE 30, 1909, BY PORTS.

Action taken.	San Francisco, Cal.	Seattle, Wash.	Honolulu, Hawaii.	Sumas, Wash.	Portal, N. Dak.	Malone, N. Y.	Richford, Vt.	New York, N. Y.	Total.
Pending at close of previous year	7	1	1	......	......	5	3	1	18
Appealed	271	14	5	18	14	52	16	1	391
Total	278	15	6	18	14	57	19	2	409
Disposition:									
Sustained (admitted)	21	1	3	3	4	13	6	......	51
Dismissed (rejected)	163	11	2	9	8	38	13	1	245
Withdrawn or disposed of by means other than departmental decision	70	2	1	6	1	2	......	1	83
Pending at close of current year	24	1	......	......	1	4	......	......	30

TABLE 5.—DEPARTURE AND RETURN OF REGISTERED CHINESE LABORERS, FISCAL YEAR ENDED JUNE 30, 1909, BY PORTS.

Port.	Departure of laborers.	Return of laborers.	Port.	Departure of laborers.	Return of laborers.
San Francisco, Cal	425	359	Richford, Vt	50	46
Seattle, Wash	213	143	Buffalo, N. Y	9	....
Honolulu, Hawaii	226	160	New York, N. Y	2	....
Sumas, Wash	21	33			
Portal, N. Dak	76	77	Total	1,102	950
Malone, N. Y	80	132			

TABLE 6.—ACTION TAKEN IN THE CASES OF CHINESE PERSONS ARRESTED ON THE CHARGE OF BEING IN THE UNITED STATES IN VIOLATION OF LAW, FISCAL YEAR ENDED JUNE 30, 1909.

CASES BEFORE UNITED STATES COMMISSIONERS.

Until order of deportation or discharge:		
Arrests		836
Pending before hearing at close of previous year		137
Total		973
Disposition:		
Died, escaped, and forfeited bail	15	
Discharged	146	
Pending before hearing at close of present year	125	
Ordered deported	687	
After order of deportation:		
Ordered deported		687
Awaiting deportation or appeal at close of previous year		186
Total		873
Disposition:		
Escaped	2	
Deported	601	
Awaiting deportation or appeal to United States district courts at close of present year	104	
Appealed to United States district courts	166	

CASES BEFORE UNITED STATES DISTRICT COURTS.

Until order of deportation or discharge:		
Appealed to United States district courts		166
Pending before trial at close of previous year		86
Total		252
Disposition:		
Forfeited bail	10	
Discharged	41	
Pending before trial at close of present year	106	
Ordered deported	95	
After order of deportation:		
Ordered deported		95
Awaiting deportation or appeal to higher courts at close of previous year		8
Total		103

After order of deportation—Continued.		
Disposition:		
Died	5	
Escaped	7	
Deported	51	
Awaiting deportation or appeal at close of present year	22	
Appealed to higher courts	18	

CASES BEFORE HIGHER UNITED STATES COURTS.

Until order of deportation or discharge:		
Appealed to higher United States courts		18
Pending before trial at close of previous year		27
Total		45
Disposition:		
Discharged	2	
Pending before trial at close of present year	15	
Ordered deported	28	
After order of deportation:		
Ordered deported		28
Awaiting deportation at close of previous year		1
Total		29
Disposition:		
Deported	13	
Awaiting deportation at close of present year	16	

RECAPITULATION OF ALL CASES.

Arrests		836
Pending at close of previous year, including those awaiting deportation or appeal		445
Total		1,281
Disposition:		
Died, escaped, and forfeited bail	39	
Discharged	189	
Deported	665	
Pending at close of present year, including those awaiting deportation or appeal	388	

SUMMARY OF ACTION TAKEN IN THE CASES OF CHINESE ARRESTS, FISCAL YEAR ENDED JUNE 30, 1909, BY MONTHS.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Arrests made during present month	87	64	98	99	46	56	68	87	73	42	52	64	836
Died, escaped, and forfeited bail	....	....	1	5	2	6	3	3	3	10	....	6	39
Discharged	11	18	9	34	13	16	6	25	8	29	7	13	189
Deported	112	86	50	82	112	10	....	13	146	8	40	6	665

党访编读人，下8页[illegible]张永松，1989.3.2.

preceding, the majority of the arrests were of Chinese who had surreptitiously crossed the land boundaries; and, as in the year 1908, about 89 per cent of those apprehended were taken into custody in districts immediately on or directly connected with the land boundaries. It will be noted, however, from Table 6 that the Government has been somewhat more successful in securing orders of deportation in the past than in the preceding year; that in 1908 the deportations were only about 75 per cent of the cases considered, while in 1909 the ratio is 78 per cent.

It will be seen from the foregoing comment regarding the statistics that the experience of the past year has been but a repetition of that of previous years in the effort to render effective what is probably the most difficult piece of legislation to enforce ever placed upon the statute books. Despite all that is said and all that is done, the Bureau is always confident at the close of any year that many Chinese of the excluded classes have evaded the border officers, however vigilant they may have been, have smuggled themselves or been smuggled ashore in seaports as sailors or stowaways, or have by fraud and perjury managed to land in an apparently regular manner. There are doubtless now in this country at least as many Chinese not entitled to residence here as of the lawfully resident class, and they have entered in every way that can be imagined, from the apparently regular method of deceiving the officers to being packed in refrigerator freight cars or in the refrigerators of dining cars crossing the land boundaries, or in the coal bunkers, chain lockers, or forepeaks of vessels sailing from the Orient or the West Indies. A Chinaman apparently will undergo any hardship or torture, take any risk, or pay any sum of money up to $1,000 to enjoy the forbidden but much coveted privilege of living and working in the United States.

The following is a copy of a contract, forwarded to the Bureau through the Department of State by the consul-general at Hongkong, which is interesting evidence that the smuggling of Chinese into this country is a regular and recognized business. An effort was made in the Hongkong courts to enforce the settlement of an unpaid balance under this contract; but as the evidence showed that the "valuable thing" named therein was nothing less than a Chinese coolie, the judge held the contract invalid as being in derogation of a law of a friendly nation:

> Whereas Mr. Yan Yuen has agreed to convey a valuable thing to America, and whereas it has been agreed upon that the cost for the undertaking is $1,050, which amount will be paid in installments in the following manner: In Hongkong $150 Hongkong bank notes is paid to him and on arrival in America $200 American dollars will also be paid to him. When the said Yan Yuen returns to Hongkong the balance of about $500 will be paid to him, and if there is any money paid in excess for that $200 American dollars by exchange it should be deducted from the said balance. It is hereby further agreed that the said amount must be paid in full as soon as the firm, Chung Shun Wo, gives instructions for the payment, supported by the proof of the said firm's chop, together with a letter written by the genuine man in respect of the same. If thing (in trust) can not be landed and will be conveyed back to Hongkong and if there will be no instructions supported by the proof of the said firm's chop and if there will be no instructions from the genuine person in respect of the payment, the balance should not be paid and this undertaking will be regarded as waste paper.
>
> This is a written proof.
>
> Made by TAM HIN,
> *Hip Hing Lung of Chung Wan, Hongkong.*
>
> Kwong Sui 34th year 10th Moon 9th day [November 1, 1908].

No other aliens that attempt to enter are so persistent in their efforts or so cunning in their devices or backed with such financial resources as the Chinese. No matter how poor in body and purse a Chinese may be, if he has a clansman, or tongsman, or fellow "company man" already in this country, the means will be found for his entry.

This interesting, engaging, and puzzling question has had the Bureau's close attention for many years. It long since concluded, and has continually been having that conclusion reaffirmed by experience, that the system of exclusion and expulsion afforded by the laws is but illy adapted either to exclude or to expel the Chinese laborer. The present law, moreover, is unduly harsh at points where rigidity does no good, but much harm. As was said in last years' reports (p. 243), "the object to be accomplished in enforcing an immigration law relating to Chinese should be to make easy the admission of those entitled to land and to make sure both the exclusion and the expulsion (for one can not be made effective without the other) of all not entitled to enter and reside in this country." Neither branch of that object is accomplished by the present law. Every plan adopted by the Government to enforce the statute is promptly met by a counter plan to defeat it. The more rigid and successful the port inspections are made, the more persistent become the operations of the smugglers; draw the lines tight on the land borders, and it is soon found that the base of operations has been changed from Canada and Mexico to Jamaica and Cuba and that Chinese are being landed systematically at the seaports as sailors and stowaways. The Bureau is confident that, with its large possibilities for money making, the smuggling of Chinese will never be successfully prevented until there is put into operation a plan whereunder at least the majority of those who enter unlawfully can be promptly deported. Just so long as they can enter with a reasonable assurance that they can labor for several years unmolested, or if apprehended can resort to the courts and delay deportation almost indefinitely by continuances and appeals, just so long will the "companies," or so-called "mercantile firms," located throughout this country and in Canada, Mexico, Jamaica, Cuba, and Hongkong, continue to export and import the coolie and to amass fortunes in the business. That these methods are pursued is not fiction, but fact. Papers in the Bureau's files show conclusively that the traffic has been conducted for years, and contain the names of the men and firms and in some instances the approximate size of the fortunes derived by them from the importation of laborers at an average cost to each laborer of about $600, which he must repay with usurious interest by his own labor after he has been placed in a laundry, restaurant, store, private family, or in other employment in the United States. It requires no expert accountant to calculate that, at such an average price with usury, the promoters can well afford to take extraordinary risks and can grow rich, even if a considerable number of their clients are captured and deported. All of these things can be demonstrated to a moral certainty, but when an effort is made to secure convictions in court all kinds of technicalities are encountered and there is no lack of money to procure false testimony. The Bureau repeats that the only way to destroy the traffic is to destroy its profits by applying to these now, in this respect, specially favored aliens the same system of effecting deportation that is so successfully invoked in the cases of all others, European and Asiatic.

On the other hand, the present law is unduly and worse than uselessly rigid in so far as it relates to Chinese of the recognized bona fide nonlaboring classes and to Chinese of all classes legally within the country. There is no reason why there should be any more objection to the entry to this country of a real physician or chemist of the Chinese race than to the entry of a merchant. Yet at the time the treaty and laws were adopted and enacted it was thought that "officials," "teachers," "students," "merchants," and "travelers for curiosity or pleasure" were the only classes that needed to be or ought to be regarded as nonlaborers, and the laws have necessarily been so construed, both administratively and judicially. Now, with the advancement of western learning and customs in China, there are Chinese who occupy nearly every occupation or profession that exists in this country, and embarrassment is constantly met, and overcome only with difficulty. Chinese, whether laborers or nonlaborers, who are entitled to be in the country should, as a matter of mere justice, be permitted to leave and return with no more restrictions than are necessary for the establishment of their identity and the enforcement of the general immigration laws. To attach harsh conditions to the reentry of such lawfully resident persons is merely inviting perjury and fraud, with no compensating advantage. No doubt the framers of the law specified those conditions with the idea and purpose to gradually rid the country of every laborer then within its confines; but they did not so operate. Every Chinese now in the country and every one hereafter lawfully admitted should be furnished with indubitable evidence, to be permanent so long as a lawful status is maintained, of his status and rights. This would require a new registration, which necessarily would legalize the presence here of thousands of Chinese who, if the facts were disclosed, have no right to remain in the country. Moreover, the registration would have to be of a continuing nature, so that there might in future be no difficulty in determining instanter whether or not any Chinese is lawfully within the country. On this subject the following statement, made by Commissioner North, of San Francisco, in his report for the year 1908, and repeated in his last report, is quoted:

> The Chinese-exclusion law as it stands on the statute books to-day seems to me to be as fragmentary, inefficient, and unreasonable as might be possible to suppose. In the first place, as a piece of executive machinery it is very incomplete, there being no provision for compelling the attendance of witnesses by subpœna or otherwise and no authority vested in anyone to administer oaths to witnesses, and consequently no way to punish perjurers. Again, there is no good reason, in my opinion, why general amnesty should not be accorded to all Chinese now in the country not under arrest by a reregistration of such persons, and that after this is done any Chinese showing himself to the appropriate immigration officer to be lawfully in the United States should be allowed the privilege of going to China at will, to remain for such a period of time as suits his convenience. On return he should be landed simply upon identification. This would not weaken the exclusion law in any way, but in my judgment would render it much less expensive to enforce, and would do away with the friction that now exists; also, it would generally be beneficial to all concerned. Again, the law should be amended requiring the evidence of other American citizens to establish nativity and consequent American citizenship. Thousands of Chinese persons have been declared by the courts and other appropriate authorities to be natives of the United States during the past fifteen years. Of this number I verily believe nearly 90 per cent are frauds; but their cases have been adjudicated, and there is no gainsaying their present citizenship. These people have learned during the past few

> years that they can go to China and return at will, accompanied by their wives and children, thus manifolding the original fraud. What has been done can not be undone, but it is high time that some appropriate steps be taken to put an end to this ever-increasing fraud. The vast number of men who have been found to be natives are undoubtedly Chinese persons who have surreptitiously entered the United States either from Canada or Mexico, and that since registration closed in 1894.

(See also report of the inspector in charge of the New York-New Jersey district, p. 238.)

All of these matters are covered by the draft of a bill presented in Appendix I (see particularly sections 13, 15, 22–27, etc., pp. 256, 257, 260,–263, 275, 278); and attention is directed anew to all that was said regarding this matter in last year's reports (pp. 243–255).

During the past year the Bureau has caused a number of cases of the smuggling of Chinese to be carefully investigated, and its files contain several interesting and valuable reports on that subject. Along the Mexican border in particular the operations of the smugglers have been active, but there has been a renewed effort on the part of the immigration officials to successfully meet the intricate and varying schemes that are adopted by the promoters and smugglers. In he vicinity of El Paso, and also in the southern district of California, many smuggled Chinese have been apprehended, and several important prosecutions of smugglers are now pending. These prosecutions are in such condition that it would not be to the Government's interest to give the details here. Suffice it to say, that the Bureau is satisfied that arrangements exist, and have existed for some time, under which many Chinese are brought across the land boundary and taken to the large cities of the interior, where they become lost in the Chinese population. It is hoped that the prosecutions now pending may result successfully and be a severe blow to the smuggling industry.

Along the Canadian border, also, the activities of the smugglers have continued, resort being had to various devices to evade the inspectors and pass the Chinese into the country. At Buffalo in the fall of 1908 an attempt was made to bring 10 Chinese across the lake in an open boat. A severe storm arose and the boat was dashed against the sea wall, 6 of the Chinese being drowned and 4 rescued with great difficulty. Two of the white men implicated in the smuggling escaped, while another was captured, plead guilty, and was sentenced to the penitentiary for one year. A simliar attempt was made earlier in the year to bring a party of 8 Chinese across the lake in a small boat and land them at Buffalo. This time all of the Chinese were captured, as well as the 2 white men who had charge of the party. One of the latter plead guilty and was sentenced to sixty days in jail and a fine of $1, the judge in imposing such a light sentence evidently taking into consideration the fact that the man had already spent more than five months in jail while awaiting trial because of his inability to furnish bond. The other smuggler plead not guilty, was convicted, and sentenced to seven months' imprisonment and a fine of $1. In another case 5 Chinamen were brought over in the vicinity of Buffalo in an automobile and were captured. The 3 white men who had charge of the party were also apprehended, 2 of them being convicted and sentenced, 1 to pay a fine of $250 and serve one day in jail and the other to pay a fine of $1 and serve seven months in jail, and the third party pleading guilty and being sentenced to imprisonment for one year and a fine of $1. In several instances it was discovered that Chinese were being placed in bonded cars on the Canadian side of the boundary and passed through the lines.

In December, 1908, information was obtained which led the Bureau to believe that arrangements were being made for the wholesale smuggling of Chinese from Mexico into American gulf ports by the use of sailing vessels. Inspector A. P. Schell, of New York, was detailed to conduct a thorough investigation. He spent several months in Mexico and the Gulf States and submitted a report of great value, having in the meantime so conducted his investigations as to bring about the indictment of 12 persons for smuggling, 3 of whom plead guilty and the trials of the rest of whom are still pending. His investigations also resulted in the forfeiture under libel proceedings of 1 vessel that had been engaged in the unlawful traffic and would doubtless have so resulted with regard to the other vessel but for the fact that it was wrecked. It was shown that at least 39 Chinese had been landed in the vicinity of New Orleans, only 1 of whom, however, was captured, the rest having proceeded promptly to their destinations in San Francisco, Chicago, and New York.

In one respect in particular the year has witnessed what the Bureau regards as distinctly an advance step in a reasonable enforcement of the exclusion laws, viz, the perfection of a system under which each Chinese person regularly admitted to the country may be supplied with a certificate of identity, so prepared as to be noncounterfeitable and practically indestructible, which he may always retain in his possession as indubitable proof of his legal entry. On March 19, 1909, Bureau circular No. 27 was issued putting said plan into operation. The certificate to be used has been prepared by the Bureau of Engraving and Printing on secret paper from specially engraved plates. This is an application to Chinese entering the mainland of the same system which was applied a year ago to the cases of American citizens of the Chinese race in the Hawaiian Islands, as described in the reports for 1908 (pp. 255–256). The inspector in charge at Honolulu reports that the registration of Chinese-Americans under that plan in the said islands has been practically completed and is found to be entirely satisfactory.

In another respect have the Chinese been favored, viz, by the adoption, in October, 1908, of a plan devised by the Bureau under which Chinese of alleged American birth may have their cases investigated and their status determined before they leave the United States on visits abroad. This is accomplished by an amendment of rule 39 of the Chinese regulations, applying to the cases of such Chinese a system of "return certificates" somewhat similar to that provided by the law in the cases of lawfully domiciled laborers. The plan is found to operate to the distinct advantage of all concerned.

REPORTS OF COMMISSIONERS AND INSPECTORS IN CHARGE.

In accordance with the regular practice reports have been submitted to the Bureau by the various commissioners of immigration and inspectors in charge of the several seaports of entry, of the Canadian and Mexican borders, and of the districts into which the country is divided for convenience in enforcing the laws. Those reports cover the administration of both the immigration and the

Chinese-exclusion statutes and regulations, and indicate in most instances that there is no lack of endeavor and enthusiasm in the work. It would be both interesting and useful to give extracts from many of the reports, which would be the Bureau's disposition were it not so important to keep this document within reasonable limits. Many of the details of the work are at least indicated by the statistics herein given and discussed, but it would be valuable to afford expression in this public manner to the views of the Bureau's chief field officers who have distinct ideas on the live questions with which they have to deal. Space, however, will not permit of the insertion even of extracts from more than a limited few. The most important or typical reports are therefore selected, with the general comment that the others are satisfactory in character.

New York being the most important gateway for immigration, the report of the commissioner there is always inserted in this document. The Canadian and Mexican borders rank next in importance, by reason of the peculiar circumstances under which both the immigration and the Chinese-exclusion laws have to be enforced and the often almost insurmountable difficulties and embarrassments that have to be overcome. Never, however, have the interior districts been as important as during the past year, because the activities of the service have been so extensively directed toward ridding the country of undesirable aliens, who had in the three preceding years gained entry contrary to law or become public charges. In the arrest and deportation of Chinese, also, successful results have increased, as shown in the comment regarding Table 6 (p. 207), but in this respect there has not yet been as much improvement as the Bureau desires. It can be imagined, therefore, that the reports of inspectors in charge of interior districts are by no means lacking in items of interest.

The report of the commissioner at New York reads as follows:

I became commissioner May 28, so that I have held office only during one month and three days of the period to which this report is intended to relate. The tide of immigration, which in 1908 fell to a low point, appears again to be rising rapidly, and I proceeded at once to take steps to reduce so far as possible the number of aliens ineligible under our laws who shall during the next year attempt to pass through Ellis Island. These laws, except as they relate to contract laborers, exclude only such manifestly undesirable persons as idiots, insane persons, paupers, persons likely to become public charges, persons with loathsome or dangerous contagious diseases, convicted criminals, prostitutes, etc. A mere reading of this list shows that they could not be less exacting without exposing the country to grave danger. Even their strict execution makes it possible to keep out only what may be termed "scum," or the very worst elements that seek to come here. That no one, including particularly intending immigrants, should have any misapprehension as to the policy to be followed at Ellis Island, a notice of which the following is a copy was issued on June 4:

"It is necessary that the standard of inspection at Ellis Island be raised. Notice hereof is given publicity in order that intending immigrants may be advised before embarkation that our immigration law will be strictly enforced; so that those who are unable to measure up to the requirements of the law may not waste their time or money in coming here only to encounter the hardships of deportation."

But actually to raise the standard of inspection at a great immigration office requires something more than a general notice. The whole official force must be carefully and uniformly trained in the exercise of proper care. It is necessary to ascertain who does and who does not know and understand the statutes, and amongst other things to explain the facts and elements to be considered in determining whether or not an immigrant is a "pauper" or a "person likely to become a public charge." All of this requires time and patience, and one month is so short a period that I shall defer report of results until later.

On June 28 another important notice was issued and at once gave rise to so much misrepresentation that I cite it:

"Certain steamship companies are bringing to this port many immigrants whose funds are manifestly inadequate for their proper support until such time as they are likely to obtain profitable employment. Such action is improper and must cease. In the absence of a statutory provision, no hard and fast rule can be laid down as to the amount of money an immigrant must bring with him, but in most cases it will be unsafe for immigrants to arrive with less than twenty-five dollars ($25) besides railroad ticket to destination, while in many instances they should have more. They must in addition, of course, satisfy the authorities that they will not become charges either on public or private charity."

This notice is not, as so many have claimed it to be, a rule under which inspectors must exclude immigrants with less than $25, and thus an attempt to create a property test not found in the statutes. It is merely a humane notice to intending immigrants that upon landing they will require at least some small amount of money with which to meet their wants while looking about for employment. That it was time for the Government to serve this warning * * * is shown by a mere inspection of some of the records of incoming vessels. For instance, of 251 alien steerage passengers on a recently arriving vessel, 37 were accompanying wives and children, and of the remaining 214, 30 had no money, 13 had $1 or less, 11 had $2, 15 had $4 or less, 33 had $6 or less, 31 had $8 or less, 21 had $10 or less, and 60 had $10 apiece. And yet the majority of these indigent people were going to congested portions of our large cities where the competition among newly arrived immigrants for a living is very great. One hundred and thirty-five were bound for New York City. Undoubtedly the principal test to which immigrants should be subjected is as to their ability to become self-supporting, but the Government may properly insist that while looking for employment they shall not run the risk of becoming objects of charity. And this leads me to remark that the practice under which penniless immigrants are allowed to qualify after arrival by receiving gifts of money from persons under no moral or legal obligation to support them is a bad one and should gradually be terminated. With this in view I added to the notice of June 28, above referred to, this clause:

"Only in instances deemed by the Government to be of exceptional merit will gifts to destitute immigrants after arrival be considered in determining whether or not they are qualified to land; for, except where such gifts are to those legally entitled to support (as to wives, minor children, etc.), the recipients stand here as objects of private charity, and our statutes do not contemplate that such aliens shall enter the country."

One of many objections to such gifts is that they are often mere subterfuges to defeat the law. Instances are constantly coming to our attention where money so given is taken from the immigrant in indecent haste, at times even before he leaves the Barge Office. Incidentally, I note that Canada (which many will be surprised to learn is now stricter than the United States as regards the admission of immigrants) declines to receive immigrants who are unable upon arrival to show $25 which they have brought with them. They are not allowed to qualify through gifts of money received after arrival.

One reason why so many destitute immigrants come here is that there are certain wicked agencies abroad (and even in this country) whose sole purpose is to exploit immigrants, give them false advice, and circumvent our statutes. Of these agencies I shall have more to say later, and now only point out that they are not receiving the attention they deserve.

I have already adverted to the easy-going character of our exclusion laws and stated that even their strict enforcement keeps out only the very bad elements of foreign countries. Between these elements and those that are a real benefit to the country (as so many of our immigrants are) there lies a class who may be quite able to earn a living here, but who in doing so tend to pull down our standards of living. I am not now concerned with the question whether or not laws can be framed which will correctly describe this undesirable class. I wish merely to emphasize, what must be known to every thinking person, that it is coming here in considerable numbers and that we are making no effort to exclude it. Few people are bold enough to claim that we are in urgent need of any more immigrants who will crowd into the congested districts of our large cities. And yet this is where a large percentage of our immigrants now go and stay. At a time when portions of the West are crying for out-of-door labor the congestion in New York City may be increasing at the rate of many thousands per month. Another way of putting this is to say that much of our present-day immigration is not responsive to the legitimate demands for additional labor in the United States. I think this fact should be made known throughout those sections of our country where many erroneously think that further restrictions of the right kind would increase the difficulties incident to obtaining labor for which there is a real demand. Quite the contrary is the case, for poor immigration tends to deter good immigrants from coming.

If the immigration law is to be executed at Ellis Island with the thoroughness which its importance requires, both more men and more space must be provided. It frequently happens that 5,000 aliens arrive in one day. With the force of inspectors at my disposal not over two minutes can be devoted to each of them at the first inspection, at which over 70 per cent are usually admitted. Those held for special inquiry of course receive further investigation, of which I am not now speaking. The inadequacy of the period of two minutes above mentioned is emphasized further when we remember that there are now 38 questions to be asked and notations made in response thereto on the manifest. And to accomplish even this inadequate inspection the inspectors must work nine hours almost continuously. The situation becomes infinitely worse when 5,000 arrive on each of two or three succeeding days. I see that in May, 1907, 150,000 arrived, or an average of 5,000 a day for each of thirty successive days. This may happen again, and I feel it my duty to state plainly that if it does full or proper inspection will, in the absence of increased facilities, be out of the question, both for lack of time and lack of physical and mental endurance on the part of the officials.

The question will be asked, Why should there be received at Ellis Island on any one day more immigrants than can be carefully inspected? My inclination, of course, is to take only such a number (say 3,000), and so far as practicable I shall act accordingly. But if with an average of 5,000 a day for one month I were to decline to receive over 3,000 a day it might well be charged that it was the duty of the Government to make timely provision for the proper inspection of such number of immigrants as were likely to arrive, so that commerce need not be improperly impeded or immigrants unnecessarily kept aboard iron ships, oftentimes in hot weather. As the Immigration Service is self-supporting (or, if not, can readily be made so), there seems special reason why adequate facilities should exist for the prompt and efficient transaction of all business. Even at the writing of this report, with immigration far from its highest figure, many of the officials are obliged to work overtime day after day. Not a few are on duty over ten hours. There is here a force of very willing workers, but that, I submit, is no reason why a large number of them should be called upon, sometimes for several days in succession, to render services involving unusually long hours.

As regards additional space required, I call particular attention to the lack of quarters for the transaction of that very important branch of our work known as "special inquiry." The room in which immigrants held for this purpose are detained is so inadequate as to be a reproach to the Government. Almost the same can be said of the room in which witnesses appearing before the boards are compelled to await their turn to testify. There are but three court rooms proper, whereas six boards have since June 1 frequently been in session. There should be treble the space that we now have for the various kinds of "special-inquiry" work, but I shall defer specific recommendations until later.

Our hospital facilities, thanks to the recent construction of a contagious-disease hospital on the new island, will probably now be adequate, except that there is no proper ward for holding for observation cases in which it is suspected that the alien may be affected mentally. Certain wooden barracks are now used for this purpose. They were never intended to stand permanently, and, furthermore, are dangerous by reason of their inflammability. Here, too, I shall defer specific recommendations until later, only pointing out now that something must be done before long. A fine new dormitory building, recently built at a cost of about $450,000, will facilitate materially the transaction of our business, though it is already taxed to its utmost. Unfortunately no provision has been made either for baths, forced ventilation, or freight-elevator service, all of which are important and must be added.

It is very annoying to have to report that some of the immigrant aid societies represented at Ellis Island are grossly mismanaged. When I was commissioner before I was compelled to take drastic action in respect of several, and I shall do so again in all instances where investigation may show this to be proper. A few of these societies are mere commercial institutions, in which the immigrant is not only exploited but compelled to remain in filthy surroundings and foul atmosphere. Societies of this class will shortly be either reformed or removed altogether from the island, and none should welcome this action more than the good ones, of which there are several here working really in the interest of the immigrant and incidentally aiding the Government.

The immigration and Chinese-exclusion laws are enforced along the Canadian border and at Canadian seaports in accordance with

TABLE 7.—CHINESE ARRESTED AND DEPORTED, FISCAL YEARS ENDED JUNE 30, 1908 AND 1909, BY JUDICIAL DISTRICTS.

Judicial district.	1908.		1909.	
	Arrests.	Deportations.	Arrests.	Deportations.
Vermont	2	....	8	6
New Hampshire	....	....	1	1
Massachusetts	....	....	2	1
Northern New York	67	9	63	11
Southern New York	....	....	1	4
Western New York	8	....	28	10
Eastern New York	....	....	3	....
Eastern Pennsylvania	....	2	1	....
New Jersey	....	....	14	....
Maryland	....	....	1	....
District of Columbia	....	....	5	....
Northern Georgia	....	....	1	....
Southern Florida	1	....	....	....
Middle Alabama	1	....	1	....
Northern Mississippi	....	....	3	....
Eastern Louisiana	....	....	3	....
Middle Tennessee	....	1	....	....
Northern Ohio	....	....	2	....
Southern Ohio	1	....	1	1
Northern Illinois	2	....	17	....
Eastern Michigan	12	....	18	2
Eastern Wisconsin	....	....	5	3
Eastern Missouri	4	....	2	1
Western Missouri	3	2	....	....
Nebraska	....	1	1	1
Idaho	2	....	2	1
Montana	1	1	1	....
Wyoming	2	....	....	1
Kansas	....	....	6	2
Eastern Washington	1	....	3	....
Western Washington	12	5	18	21
Oregon	4	1	5	1
Nevada	1	....	....	1
Utah	2	1	....	....
Northern California	68	43	19	8
Southern California	25	26	41	49
Arizona	307	250	215	170
New Mexico	95	41	89	116
Northern Texas	1	5	42	40
Southern Texas	1	1	4	3
Eastern Texas	4	....	....	....
Western Texas	275	87	207	211
Oklahoma	1	....	....	....
Hawaii	9	1	3	....
Total	912	477	836	665

SOURCES OF AND INDUCEMENTS TO IMMIGRATION.

A large proportion of immigration during the past year, as for a number of years previously, has had its source in southern and eastern Europe. Table III (p. 115) shows that countries of that section furnished about 67 per cent of the total immigration—Italy, 183,218, or over 24 per cent; Austria-Hungary, 170,191, or about 23 per cent; Greece, 14,111, or nearly 2 per cent; Turkey and the small principalities surrounding, 11,659, or about 1½ per cent; and Russia, 120,460, or about 16 per cent. For a graphic presentation of this subject see chart 2, facing page 248.

The Bureau has repeatedly called attention to the interesting and important economic problem constituted by this increase in the influx of peoples so different racially from the original settlers of the country—peoples who, in their antecedents, ideas, ideals (political and social), and methods of life and thought, are quite distinct from the Teutonic and Celtic stocks, from which our immigration was for so many years derived. What will be the result of a continuance of this preponderance is a question which concerns every thoughtful patriotic American citizen. From our point of view, at least, heterogeneousness in a matter of this kind is undesirable, homogeneousness desirable. There can be but little homogeneity between the people of southern and eastern Europe and the real American. Several generations are required to produce assimilation, even under favorable circumstances.

What is the explanation of this increased and still increasing inflow of Iberic and Slavic people? Several facts may be stated in partial explanation—the poor conditions, political and social, of their native countries, the natural desire to better their condition, and the wish for liberty of thought and conscience that are to some extent inherent with all races of men. But these do not afford what is believed to be the principal, the underlying, explanation. The truth of the matter is that the peasants of the countries mentioned have for a number of years supplied a rich harvest to the promoter of immigration. The promoter is usually a steamship ticket agent, employed on a commission basis, or a professional money lender, or a combination of the two. His only interest is the wholly selfish one of gaining his commission and collecting his usury. He is employed by the steamship lines, large and small, without scruple, and to the enormous profit of such lines. The more aliens they bring over the more there are to be carried back if failure meets the tentative immigrant and the more are likely to follow later if success is his lot. Whatever the outcome, it is a good commercial proposition for the steamship line. To say that the steamship lines are responsible, directly or indirectly, for this unnatural immigration is not the statement of a theory, but of a fact, and of a fact that sometimes becomes, indeed, if it is not always, a crying shame. It has been proven to at least a moral certainty by statements that have been made to the Bureau by its agents detailed abroad in past years, some of which have been quoted in previous reports. It has been demonstrated in both a moral and a legal sense by a report and accompanying documentary evidence submitted to the Bureau during the past year by Contract Labor Inspector John Gruenberg, who spent several months in Europe and in this country in the conduct of a quiet but deep investigation covering the entire field of "artificially induced" immigration. If space permitted, the Bureau would quote extensively from his several excellent and convincing reports, but it is feasible to give only a brief statement of the findings made by the Bureau from a consideration of one of the most important of the reports, all of which are founded upon practically conclusive proofs.

> He shows quite clearly that all of the steamship lines engaged in bringing aliens from Europe to this country have persistently and systematically violated the law, both in its letter and spirit, by making use of every possible means to encourage the peasants of Europe to purchase tickets over their lines to this country. They have issued circulars and advertisements, and made use of extensive correspondence, through their own agents in this country and in Europe, and of private correspondence, some of it spurious in character, to impress the peasants with the belief that employment at high wages could be promptly secured on landing in the United States. Some of them have joined hands with money lenders and other sharks for the purpose of exploiting the prospective passengers, providing them with passage under a credit system which amounted almost to robbery, and insuring themselves against loss by taking mortgages and joint notes. Some of them * * * have quite evidently operated regular employment agencies in this country in connection with their trans-

portation business, and have used these agencies not only as a means of placing the aliens in employment (in which, of course, they could have no direct interest), but to further the transportation business by making the fact of their securing prompt employment the basis for effective communications, written and oral, to other parties they desired to induce to immigrate.

* * * * * * *

The * * * record and the exhibits * * * are well worth reading, and, it is believed, are absolutely convincing that the steamship companies, in their eagerness to successfully compete with one another, have made no effort to control their agents and subagents or to keep them within the limits of the United States immigration law, but have rather encouraged than discouraged their unlawful practices in inducing an artificial immigration.

The Bureau has been meeting this situation as best it could with the law at its disposal by rejecting large numbers of aliens, especially where parties of them have come from the same localities and are destined to the same addresses; but it is difficult to secure in any particular case the evidence that undoubtedly exists to show unlawful inducement. The aliens are coached to hide the facts. If this artificial, and therefore undesirable, immigration is to be prevented or materially reduced, the law must be strengthened by extending the definition of the term "contract laborer" to include aliens induced to migrate by false promises, and by making the penal provisions more definite, as is suggested in the draft of the proposed bill given in Appendix I (see pp. 255, 266, 267, 280, 281).

It may be asserted as a general rule that stimulated immigration is undesirable. As already stated, a large part of our immigration is known to be of that character. In addition to strengthening the law in the manner above described, the Bureau suggests the desirability of so extending the scope of section 7 of the act of 1907 (section 41 of the draft presented in Appendix I, p. 267) as to penalize the stimulation of immigration by any person, company, partnership, or corporation, as well as by any transportation line. It is realized that such an amendment of the law would interfere with the very extensive operations now being carried on by various railway and land improvement companies in this country who have agents located throughout Europe engaged in the procurement of settlers for farms; but it is very difficult for those companies, even when working in the utmost good faith, to prevent their advertising and soliciting producing effects contrary to the spirit of the statute; in other words, their activities result, unwittingly perhaps, in causing the immigration of many aliens who have no intention, and are not at any rate in position, to settle in the rural districts.

Another remedy for the evils of stimulated immigration is here suggested, although, being mainly of a new character, it is not incorporated in the draft of the bill given in Appendix I. Neither the provisions of section 8 of the act of March 3, 1893, requiring that transportation companies shall conspicuously post in their foreign offices a copy of the immigration laws printed in the language of the place where posted, nor the provisions of section 7 of the act of February 20, 1907, prohibiting the solicitation of passenger business otherwise than by ordinary advertisement of dates of sailings and facilities offered on vessels, have been sufficient to reduce in any material respect the stimulated character of a large part of our immigration. This ineffective legislation should be supplemented or superseded with provisions authorizing the Secretary of Commerce and Labor to require of the responsible representatives of all transportation companies engaged in bringing aliens to the United States sworn reports with respect to the names and addresses of all their foreign agents and subagents, the amount of commissions paid such persons, whether or not any such agent or subagent has, directly or indirectly, by writing, printing, or oral representation, solicited, invited, or encouraged the immigration of any alien, what measures, if any, such transportation companies have taken to prevent such unlawful action by their agents and subagents, and to satisfy themselves that none of the provisions of the immigration law has been violated by such persons, and from what sources they obtain their knowledge or information with respect to the activities of their foreign representatives; and a heavy penalty, in the nature of a lien upon any vessel of such transportation company, and the refusal of clearance if such penalty remains unpaid, should be fixed for any failure to furnish the required information or for furnishing false information.

PHYSICAL, MENTAL, AND MORAL CONDITION OF ALIENS.

The provision of section 9 of the immigration act, under which transportation lines bringing mentally or physically diseased aliens to ports of this country are fined $100 for each such alien with respect to whom the Department becomes satisfied that competent medical examination at the time of foreign embarkation would have discovered the existence of the malady, has recently been upheld by the Supreme Court of the United States in a unanimous opinion (214 U. S., 320). This leaves intact one of the most useful measures that has ever been designed to prevent the influx of undesirable aliens and the spread in this country of contagion. How extensively it is necessary to apply the measure is shown by the fact that during the year fines aggregating $27,400 have been assessed. Of this amount $25,900 was for loathsome or dangerous contagious diseases, $300 for tuberculosis, and $1,200 for mental afflictions. An increase in the amount of this fine to $200, as suggested in the draft of a bill given in Appendix I (pp. 264, 279), would be a very important step toward an elimination of the evils that grow out of immigration. The law also should be made more certain in its specification of "loathsome" diseases and tuberculosis, as suggested in said draft (pp. 254, 274).

Table XVII (p. 178) shows that during the past fiscal year 2,390 aliens have been rejected solely on account of physical, 348 solely on account of mental, and 777 on account of moral defects, to which should be added 370 rejected because certified for minor physical or mental defects sufficiently grave to affect ability to earn a living—a total of 3,885. Table XVIII (p. 182) shows that 280 have been expelled from the country on warrants of deportation on account of physical, 730 on account of mental, and 361 on account of moral defects—a total of 1,371. Therefore, during the year it has been necessary to return to the country of origin as many as 5,256 aliens physically, mentally, or morally below the mark set by the law. (See also Annual Reports, 1908, p. 217.)

It is an easy matter to obtain from the tables an exact idea of the physical condition of aliens applying during the year for admission. It appears from Table XVII (p. 178) that 2,390 were rejected on account of physical afflictions placing them in the mandatorily excluded classes, and from Table XIX (p. 184) that 443 were certified under sections 2 and 26 of the law as persons not comprehended in the other excluded classes, but found to be physically defective to such an extent as to affect ability to earn a living. These latter cases became applications for admission under bond, of which 201 were denied and 242 granted. Thus 2,591 aliens were turned back on account of physical diseases and 242 were required to secure the Government against the likelihood of becoming a public charge by the giving of a bond. Minor physical defects, not sufficient to be taken into account in determining eligibility, were of course discovered in many others. (See also Annual Reports, 1908, p. 218.) The bonding provision of the law (sec. 26) is, in the Bureau's opinion, too broadly drawn. As a general rule, to which there should be only rare exceptions, it should be held unequivocally either that an alien is or that he is not admissible. A bond is by no means a complete protection against an alien's becoming a public charge. Many aliens change their name, rendering identification practically impossible, or remove from their original place of settlement, causing all account of the fact that a bond exists to be forgotten, or the bondsmen are or become irresponsible. Altogether the bonding system is very unsatisfactory. The Bureau suggests, therefore (pp. 259, 276), that the terms of the law on this subject should be narrowed, so as to permit of the acceptance of bond only when extreme individual hardship or suffering would result from deportation, and even then of none other than a surety bond. That is the present practice, but such practice should be specifically required by statute.

It will be seen from Table XVII that 348 aliens mentally afflicted have been detected and turned back at our ports, viz, 18 idiots, 141 insane, 42 imbeciles, 26 epileptics, and 121 feeble-minded, as compared with 20 idiots, 184 insane, 45 imbeciles, 25 epileptics, and 121 feeble-minded, a total of 395 in 1908. In 1907, when the law did not require the rejection of imbeciles and feeble-minded, 29 idiots and 189 insane were rejected. It is of the greatest importance to the welfare of our country that extreme care shall be exercised with regard to the mental qualifications of those who settle among us. It was shown in last year's reports (p. 193) that the number of insane aliens incarcerated in the asylums of this country had increased, in only four years, from 19,764 in 1904 to 25,606 in 1908, or about 30 per cent; whereas the total number of alien inmates of penal, charitable, and reformatory institutions had increased in the same time only about 34 per cent. It is not an easy task to detect at the ports, in the limited time available for examination, these mental disqualifications. The transportation companies should be encouraged to the utmost to make their examination at the port of embarkation more thorough; hence the suggestion (p. 264) that the fine for taking aliens so afflicted on board be made $200 instead of $100.

With regard to moral shortcomings, the act of 1907 is distinctly in advance of previous immigration laws. Nothing can be more important than to keep out of the country the anarchistically and criminally inclined and the degenerate in sexual morality. Yet these are the most difficult defects to detect, because the easiest and the most naturally covered up. Table XVII shows, however, that 273 "criminals," 323 immoral women, and 181 procurers of women have been rejected; and Table XVIII records 1 anarchist, 69 "criminals," 261 immoral women, and 30 procurers apprehended within the country and deported. Of these classes, therefore, there have been removed to the country of origin as many as 1,138, compared with a total of 392 for the preceding year (Annual Reports, 1908, pp. 218–219).

The campaign so successfully inaugurated against alien prostitutes and procurers in 1908 (Annual Reports, 1908, p. 219) has been followed up during the past year systematically and unremittingly. Officers have been assigned throughout the country to the special duty of apprehending and bringing about the deportation of such aliens. The result is shown in the enormous increase in the number deported. Whenever possible the cases of procurers of prostitutes and keepers of houses of ill fame have been reported to United States attorneys for prosecution. A recent decision of the Supreme Court (213 U. S., 138) is to the effect that the Federal Government can not constitutionally control the keeping of aliens in houses of ill fame, that being a part of the police power of the States. It is now necessary, therefore, to connect any person whom it is proposed to prosecute under section 3 with the importation of the alien woman or girl—often a very difficult undertaking. The law needs to be materially strengthened with respect to this matter, as pointed out in Appendix I (pp. 266, 280).

The Bureau can imagine no good reason why the Government's right to rid the land of the morally unfit, in particular, should be limited by statute to a period of three years. The law does not contemplate that such persons shall under any circumstances come into the country, but some will enter despite every effort that may be exerted to prevent. If they are not admissible, why should they be permitted, after having eluded or deceived the officers, to stay merely because they have been shrewd enough to keep under cover for a stated period of time? If the anarchist, criminal, or sexually immoral person who is lacking in cunning is undesirable, how much more so is one who adds to his degeneracy a mind trained in the art of deception and fraud. The brighter the intellect of such a person, the more undesirable and dangerous he becomes. It is upon this obvious theory that the Bureau suggests in its draft of a bill that the time limit should be abolished in so far as the law relates to aliens of this class (pp. 262, 277).

In last year's reports (p. 220) the Bureau quoted the International White Slave Agreement, to which the United States had recently become a party. So far as observation has extended, there does not seem to have been any great degree of success in handling this matter by cooperation. The difficulty probably is that the United States and European countries occupy quite distinct situations in this regard. Europe is a field in which "white slaves" are recruited by the human demons who seduce or buy the girls; the United States is a field in which they are sold or farmed out, but as a general rule they are not brought here until they have become confirmed prostitutes. Moreover, the term "white slave" as generally employed and understood in European countries does not mean nearly so much as the expression "prostitute" or "immoral woman" which appears in the United States statute. The purpose of the white-slave agreement is to prevent the seduction of and traffic in innocent girls; the purpose of the immigration act is to prevent the introduction into the United States not only of innocent girls who have been seduced into a life of prostitution, but of all girls and women of the sexually immoral class. The white-slave agreement deals with exportation as well as importation and is not limited as to the time of its taking effect; the immigration act relates to importation only and as now worded contains a statutory limitation of three years.

As a preliminary to perfecting plans for the exertion of special efforts toward ridding the country of alien prostitutes and procurers, the Bureau had Inspector Marcus Braun conduct, in the first months of the past fiscal year, a general investigation covering all of the largest cities of the United States. As the result of this investigation and of the work which has since been accomplished, the Bureau is satisfied that an enormous business is constantly being transacted in the importation and distribution of foreign women for purposes of prostitution, which business also includes the seduction and distribution of alien women and girls who have entered the country in a regular manner for legitimate purposes, and to some extent of American women and girls. The Bureau's officers have not been able to discover any direct or positive evidence of the existence of a combination or syndicate for the transaction of this nefarious business. There is, however, among the human demons who conduct it a certain esprit de corps, and in some of the larger cities there are regularly established clubs and headquarters where such men congregate. In some places, moreover, the business is apparently controlled locally by men who, by reason of the wealth they have acquired from a long continuance in the trade or by reason of their executive ability, have become in a sense leaders. In some cities, also, the traffic is more or less connected with local political conditions, and the police and other municipal authorities are either implicated or else helpless to assist in even the partial eradication of the evil.

In connection with the foregoing general statement, the fact must be remembered that the Bureau's officers have come into contact with this subject only in the limited incidental manner afforded by a federal statute dealing with a small factor thereof. It could hardly be expected, therefore, that their investigations would show anything of a detailed nature or at all conclusive with respect to those features which are strictly state or municipal affairs. In fact, it is evident, especially since the handing down of the Supreme Court decision in the Keller case, already mentioned, that the Federal Government will never be able to exercise anything like complete control of this subject; that it is essential, if the outrageous evil is to be eradicated, that the States and municipalities shall awake to the situation and proceed to exercise their undoubted authority and power for its control.

Section 1994 of the Revised Statutes reads as follows:

> Any woman who is now or may hereafter be married to a citizen of the United States, and who might herself be lawfully naturalized, shall be deemed a citizen.

Said section should be so amended as to leave no doubt on the question whether an alien woman, not in her own person entitled to naturalization, who marries an American citizen is thereby invested with citizenship. This matter is now much in doubt, and is of primary importance in the handling of cases of alien immoral women, as well as the cases of those who are mentally or physically defective. One of the favorite devices of those engaged in the importing of prostitutes is to have the imported woman marry an American citizen, thereby protecting the importer against a criminal prosecution and his business against the damage that would result from the deportation of the prostitute. There has recently been a decision by a circuit court to the effect that marriage in such a case can not confer citizenship, at least unless followed by a residence in the country (165 Fed. Rep., 980); but in the light of a decision of the Supreme Court (7 Wall., 496) indirectly touching the point, the existing doubt can not be effectually removed otherwise than by a decision of a higher court on the exact question, or by an amendment of the law, so that it would read as follows:

> Any woman who is now or may hereafter be married to a citizen of the United States, and who herself possesses the qualifications of race and character required by law of an alien applying for naturalization, shall be deemed a citizen upon commencing to reside permanently in the United States.

ALIEN CONTRACT LABORERS.

In its last year's reports (p. 224) the Bureau asserted that more had been accomplished during the year 1908 in the enforcement of the alien contract labor provisions of the law than in any similar previous period. That good work has continued. No case of alleged violation of the law that has been discovered by the efforts of the Bureau's officers, or been brought to its attention by others, has failed to receive immediate and painstaking attention. Several inspectors have been engaged almost exclusively upon this class of work during the year. Consequently both the Bureau and the public are better informed on the subject than ever before. But these provisions of the law are not easy to enforce. While not criminal, they are highly penal in their nature, and to convict violators requires the production in court of convincing evidence. In this respect, however, a recent decision of the Supreme Court is gratifying (213 U. S., 103), settling, as it does, that the proceeding for the recovery of the penalty fixed by section 5 of the act is a civil suit. This will help materially in matters of both procedure and evidence, and is distinctly in the Government's favor.

Considerable was said in last year's reports (pp. 216, 224, 225, 227, and 228) regarding the semicontract-labor law violations that grow out of the systematically induced immigration and padrone and peonage systems of employment, or a combination thereof. Those systems (especially the former, as shown more particularly at pp. 210, 211) have continued to flourish, although a serious blow has been given them by the rejection of large numbers of induced laborers and young boys at the ports and the arrest and deportation of many more.

In accordance with its usual custom the Bureau furnishes at this point a brief statement of facts regarding several of the more important contract-labor cases disposed of during the year:

The Firth Carpet Company case arose at Firthcliffe, N. Y., in July, 1908. The report of Inspector A. P. Schell, who investigated the allegation that the company had been importing laborers from abroad, was regarded as justifying the issuance of warrants for the arrest of 111 aliens. Upon carefully considering the evidence the Bureau and Department reached the conclusion that in 58 of the 111 cases it was not shown that the aliens had been imported contrary to the spirit and intent of the statute, and that in the remaining 53 cases the evidence was sufficient to justify holding that some of the aliens had been imported contrary to the spirit of the statute and that others were dependent upon those so imported. In view of the opinion of the Attorney-General of March 20, 1907, that under the act of 1903 aliens imported to perform labor in this country can not be deported unless an enforceable contract exists, although the importer may be prosecuted without the existence of such a contract, it was found necessary to direct that warrants of deportation should be executed only in the cases of 5 of the imported aliens, but the entire record of the transaction was placed in the hands of the United States attorney with request that the company be prosecuted.

In the Meyercord Company case, which arose in Chicago in February, 1909, the Department issued warrants for the arrest of 12 aliens who had been induced by the said company to enter the United States from Canada, and upon a careful consideration of the evidence adduced at the hearings they were ordered deported. Their deportation was stayed, however, to permit of the institution of proceedings against the company for the collection of the statutory penalty.

In February, 1909, the Dominion Telephone Manufacturing Company, of Waterford, Canada, entered an appeal from decisions rendered by the board of special inquiry at Detroit refusing admission to 21 Canadians who claimed to be destined to the works of the Swedish-American Telephone Company, Chicago. The claim was made that the young men were coming to this country for the sole purpose of being trained in the manufacture of telephone apparatus, and that they would eventually return to Canada to work for the Dominion Company. As it was thought that the intentions of the company were bona fide, the aliens were permitted to enter under bond conditioned for their departure within two months. Without waiting to learn the Department's decision the aliens returned to Canada, and later it was ascertained that 9 of them entered the country surreptitiously and proceeded to Chicago, where they engaged upon work for the Swedish-American Telephone Company. They were promptly arrested and either deported or allowed to return voluntarily to Canada. It was not possible to obtain any information on which anyone could be prosecuted for their importation.

A case which occasioned the Bureau considerable difficulty and required several minute investigations was that known as the "lacemakers' case." There is only a very limited number of lace operatives in this country, and the margin between the supply and the demand is constantly a narrow one. The American Textile Company, of Pawtucket, R. I., undertook to import a few such workmen from Europe in January, 1909, which raised the question whether the employers were entitled to the exception to the law permitting of the importation of foreign laborers if labor of like kind unemployed can not be found in the United States. After careful inquiry and consideration, it was decided that the men should be admitted, as at the time of their importation the supply of such operatives did not equal the demand; but it was also concluded that the margin with respect to this class of labor is so narrow that conditions are likely to change within a very short period of time, making it necessary that careful inquiry shall be instituted whenever foreigners belonging to that skilled trade attempt to enter the country.

In 1904 the Joseph Benn & Sons Company, of Greystone, R. I., imported from England 3 weavers. These men were carefully examined at the port of entry, and after considerable delay were admitted, the conclusion being reached that labor of like kind unemployed could not be found in this country. Subsequently the said company imported at least 8 additional operatives, some of whom were skilled weavers and others unskilled laborers. These importations were made without the knowledge or consent of the Government, the excuse being that the delay in landing those regularly imported had made it practically impossible to induce others to come in the same manner. The matter was brought to a focus in the spring of 1909. Several of the aliens were deported, and arrangements were made for the institution of suit on account of each of the 8. In the cases of the unskilled laborers the evidence against the firm was particularly strong, but on the question whether the company was entitled to import the skilled help there seemed to be a fair chance to establish such a contention. Under this state of facts the company submitted to the Department of Justice a proposal for the compromise of the suits on the payment of $4,000 and costs. To the acceptance of this compromise the Department consented.

The above have been selected as somewhat typical cases, but are only a few of a number with which the Bureau has had to deal in the last year.

The law on this subject sadly needs strengthening on several points. First and most important is the recommendation which appeared in the report of the Secretary of Commerce and Labor for 1908, viz, that the exception allowing the importation of foreign skilled labor, "if labor of like kind unemployed can not be found in this country," shall be so amended as to require those wishing to avail themselves of the privilege to make their application to the Department and receive its approbation of the proposal in advance of importing the laborers. As the Secretary then said, almost always when an employer is charged with violating the law resort is had to the defense afforded by the exception as now drawn, and the Government is thereby placed at a serious disadvantage. To reach the padrone and peonage operators, moreover, as well as that large and growing element of resident aliens who prey upon and exploit their fellow-countrymen in connection with the inducing of immigration by false promises of employment, it is essential that the law should clearly define the offense as including such operations and should provide a means of criminally punishing those who, because they are actually poor or because they deposit in banks in their own land as rapidly as made the gains of their nefarious operations, can not be reached in the civil suit for the $1,000 penalty. These various suggestions are put in concrete form in Appendix I (pp. 255, 266, 274, 280).

The Bureau had always supposed that the contract-labor provisions of the law related to all classes of labor, skilled or unskilled, mental or manual, and had so applied them. To this view it was led largely by the fact that special exceptions had been incorporated by Congress in those provisions from time to time to cover the cases of "professional actors, artists, lecturers, singers, ministers of any religious denomination, professors for colleges or seminaries, and persons belonging to any recognized learned profession." The Attorney-General has held, however, in an opinion dated June 2, 1909 (27 Opins., 383), in which he has made a systematic and exhaustive review of the law, the history of its enactment, and the decisions thereunder, that said provisions are intended to apply only to manual labor, skilled or unskilled. The special exceptions mentioned are, therefore, superfluous, and are omitted from the Bureau's suggested bill (pp. 255, 266). Whether the law should be made broader in this respect than it now is does not need to be discussed here.

JAPANESE IMMIGRATION.

This subject as a distinct phase of the immigration problem was discussed for the first time in the reports for 1908 (pp. 221–224). It was possible then to furnish statistics that were only partial in their scope, and from which no certain deductions could be drawn. It is possible this year, however, to supply detailed figures, and to reach at least a fairly accurate conclusion with regard to the operation of the experiment in immigration control constituted by the "Japanese proviso" to section 1 of the act of February 20, 1907, and the President's proclamation regarding "Japanese and Korean laborers, skilled and unskilled," of March 14, 1907. The experiment has certainly, with the cooperation of the Japanese Government, much more completely accomplished the exclusion of "Japanese laborers," as defined in the regulations putting the arrangement into effect, than have the Chinese-exclusion laws ever operated to prevent the immigration of "Chinese laborers," as defined in such laws, and is working at this moment with a greater degree of relative success. How far the definition of "Japanese laborer" reaches was shown in the reports for 1908 (pp. 221–222), where it was pointed out that the law and the proclamation had been supplemented by a general understanding with Japan, contemplating that the Japanese Government shall issue passports to continental United States only to such of its subjects as are nonlaborers or are laborers who, in coming to the continent, seek to resume a formerly acquired domicile, to join a parent, wife, or children residing therein, or to assume active control of an already possessed interest in a farming enterprise located in this country; so that the three classes of laborers entitled to receive passports have come to be designated "former residents," "parents, wives, or children of residents," and "settled agriculturists." With respect to Hawaii, the Japanese Government of its own volition stated that, experimentally at least, the issuance of passports to members of the laboring classes proceeding to that Territory would be limited to "former residents" and "parents, wives, or children of residents." The said Government has continued to exercise a careful supervision over the emigration of its laboring class to foreign contiguous territory.

Tables A to F (pp. 196–201) cover this interesting phase of immigration for the past year, during which it has been possible to keep statistics of a detailed and accurate character. The progress made and the results obtained can now be stated with some degree of assurance, the system having been in operation for two complete years. It is certainly gratifying to note from Table A that there has been a material reduction in the number of Japanese admitted both to the continent and to the Territory of Hawaii, as well as in the number of deportations that it has been necessary to make from the mainland. In 1908, 9,544 Japanese were admitted to continental United States and 8,694 to Hawaii, with 643 debarred at the ports of the former and 60 at the ports of the latter, while in 1909 the corresponding figures are 2,432, 1,493, 212, and 46, respectively. Thus it will be seen that the number of Japanese admitted to the mainland and Hawaii, respectively, has been only about 25 per cent and 17 per cent, respectively, of the number shown for 1908. Table B furnishes for the guidance of anyone interested to follow this subject in detail a means of comparing the immigration and emigration of Japanese in 1908 with that of the past year by months.

Table C is of more direct interest to those who wish to ascertain the occupations of Japanese who have entered and left the country, such occupations being segregated into two classes: (1) Those who under the provisions of rule 21 of the immigration regulations are regarded as nonlaborers, and (2) those who under said rule are regarded as laborers. It will be noted that of the latter class, to which the most interest attaches, only 713 were admitted during 1909 to continental United States, while 1,963 departed, as against 4,041 entering and 2,063 leaving in the preceding year; that the figures for Hawaii are 1,213 and 1,586, against 5,700 and 3,528, respectively.

Table D is a comparison of the records of Japanese immigration and emigration kept by the Bureau with similar records compiled by the Japanese Government. The variation shown by comparing these figures with those contained in other tables is partially explained by the fact that this table is compiled from records of embarkation and debarkation, whereas the other tables relate to entries and departures recorded at United States ports. It is both interesting and gratifying to observe how nearly the figures covering departures from Japan kept by the Japanese officials agree with those kept by the officials of the Bureau, the difference being too slight to call for particular notice.

Tables E and F supply information for the entire year for continental United States and Hawaii, respectively, of the character which in 1908 it was possible to furnish only for the month of June. (See reports for that year, p. 223.) Table E shows that during the year 2,644 Japanese applied for admission to continental United States, of whom 2,432 were admitted and 212 debarred. Of the total number applying, 2,407 were and 237 were not in possession of proper passports. Of the 2,407 holding proper passports, 2,203 were found on examination to belong to the classes entitled by the understanding to receive passports, and the remaining 204 were found on examination not to fall within such classes. The 2,203 entitled to passports consisted of 768 former residents, 942 parents, wives, or children of residents, and 493 new arrivals who were nonlaborers. The 204 in possession of passports, although apparently not entitled thereto, were found to be laborers and not to be former residents, parents, wives, or children of former residents, or settled agriculturists; so that with respect to this number it is reasonable to assume that the passport officials of Japan were deceived as to their status, and that most, if not all, of them produced evidence to show that they were proceeding to this country to join immediate relatives or were the possessors of interests in farms located here. These figures are the result of an urgent desire on the part of the inhibited class to enter continental United States notwithstanding the prohibition, and illustrate the necessity for constant watchfulness to prevent fraud. Of the 2,644 applying for admission 1,777 were males, while 867 were females. Of those applying for admission on the claim of relationship 14 were "parents" and 273 were "children," while 665 were "wives" of residents. Of the 2,407 passports presented, 1,215 gave the holders' occupation as of a nonlaboring character, 141 gave such occupation as laboring, and 1,051 failed to state occupation. Other interesting and pertinent details regarding the passports and the aliens presenting them may be gathered from this comprehensive table.

Table F furnishes information similar to the above regarding the Territory of Hawaii. During the year 1,539 Japanese applied at Honolulu, 1,493 of whom were admitted and 46 debarred. All but 11 of the 1,539 applicants were in possession of passports. Of the 1,528 holding passports, 1,375 were entitled thereto under the definitions set forth in the table and 153 were found upon examination not to fall within such definitions. Of the 1,375 entitled to passports, 266 were former residents and 1,109 were parents, wives, or children of residents. The 153 not entitled to passports consisted of 79 laborers and 74 nonlaborers who were not former residents nor parents, wives, or children of residents.

CHINESE EXCLUSION.

This subject has heretofore been treated as a distinct feature of the report; but, as already stated, the Bureau believes, being strictly a part of the general question of immigration, and especially as this year to a greater extent than ever before the two branches of the service have been consolidated, the time is propitious to merge it into the main report. The statistical tables regarding Chinese are therefore included in the general series, without extended comment, and are here discussed in detail.

Table 1 (p. 202) supplies a ready means of comparison between the number of Chinese who sought admission under the various claims permitted by the law during the years 1906–1909, inclusive. No table of this kind has heretofore been presented. It will be noted that during the past year 6,395 Chinese have been admitted, against 4,624 in 1908, 3,255 in 1907, and 2,732 in 1906. In other words, the admissions for the past year were 38 per cent greater than for the preceding year, 96 per cent greater than for 1907, and 134 per cent greater than for 1906. With regard to deportation, it is shown that 564 were deported in the past year, 364 in 1908, 259 in 1907, and 205 in 1906; so that the ratio deportations bear to admissions is approximately 1 per cent greater for the past year than for any one of the three preceding years. The worst feature of the increase in applications is that it is confined almost entirely, as pointed out more particularly hereafter, to classes the members of which either are, or soon become, ordinary laborers, and whose presence in the United States, although accomplished in an apparently legal manner, is a violation of the spirit of the law. A total of 31 escapes is recorded for the year. These have been principally due to the difficulty of properly guarding Chinese in the detention station at San Francisco, brought about by recent changes along the harbor front, a condition which will soon be remedied.

Table 2 (p. 203) is a comprehensive description of action taken on the cases of Chinese who have sought admission to the United States during the year. It is a combination of Tables 1 and 2 of previous reports, and is so arranged as to account for every application and show the disposition, preliminary and final, made thereof, and number pending at the close of the year. It will be noted that 7,085 new applications were made during the year, and 146 were pending from the previous year, making a total of 7,231 cases for consideration. Of these Chinese, 6,343 were admitted by the inspectors at the ports, 51 were admitted by the Department on appeal, and 1 was admitted by a court on a writ of habeas corpus, a total of 6,395; while 564 were deported, 31 escaped, and 241 remain pending. In explanation of the one case being admitted by the court, it should be stated that the court obtained and maintained jurisdiction only because an unfortunate oversight occurred when the evidence procured by the investigation was collated, a statement then taken being omitted from the record. While this statement was not particularly material, the court held that its omission substantially deprived the applicant of his appeal. No such mistake is likely to occur again, and it seems altogether improbable that any Chinese refused admission will ever hereafter be able to resort to the courts and overturn the decision of the immigration officers, to whom Congress has assigned the duty of deciding these matters, and who are apparently deeply impressed with the gravity of their judicial functions in this regard. Attorneys who have endeavored to have Chinese cases reviewed by the courts should be discouraged by the fact that in 15 instances in the past year their efforts failed, as well as in every instance (13) in which the attempt was made in 1908.

At the bottom of Table 2 there is given a recapitulation, arranged by port of application instead of by the class alleged by the applicants. It will be noted that 5,161 cases arose at San Francisco, 1,172 at the five Canadian border ports, 454 at Seattle, and 398 at Honolulu, the balance being scattering cases at the ports of less importance.

The total number of "section 6" cases is also shown separately, that being the technical name for the classes allowed under the treaty and laws to enter the country, viz, merchants, students, travelers, and teachers. It is the custom to admit such applicants promptly upon arrival unless there is some good reason to suspect the bona fides of their claim. This is shown by the fact that no cases remained pending on the last day of 1908 and that only 5 were pending at the close of the year covered by this report. It is also interesting to note that of the 507 members of these classes applying, 484 were admitted and only 18 deported; the majority of the latter, moreover, were deported because afflicted with a dangerous contagious disease and not under the Chinese-exclusion law. Applications by the "section 6" class have increased about 26 per cent over 1908.

With regard to domiciled merchants, it is shown that 985 applications for the privilege of reentry were considered, 947 of the applicants being admitted and 20 deported, while 5 escaped, and 13 cases remain pending. This is an increase in applications of about 16 per cent over the figures for 1908. Those deported, of course, failed to show that they were entitled to the status of merchants formerly domiciled in the country. Next to the "native" and "son of native" classes, hereafter mentioned, the class which lends itself most readily to the perpetration of fraud is that known as "minor sons of merchants." From Table 2 it will be seen that 1,151 members of this class (constituting nearly one-sixth of the total admissions) entered during the year, and that 233 alleged members of said class have been deported. The admission of these "children" is based upon the Supreme Court decision in the case of Mrs. Gue Lim (176 U. S., 459). Clearly, that decision and the opinions of lower courts thereby affirmed, being a judicial exception to the general provisions of the statute, were never intended to authorize the admission of persons who had reached maturity. What the courts had in mind, undoubtedly, was that Chinese of the excepted classes domiciled in this country should not be refused the privilege of having their minor children, dependent upon them for support and education, with them in their adopted home. The judicial exception has, however, been made the means of introducing into this country numbers of young Chinese coolies, who are really mature and whose nurture and education is a thing of the past, and they, immediately or soon after entry, engage in laboring pursuits contrary to the spirit of the law. It is understood that the practice in the Philippine Islands has been to admit no children of members of the exempt classes that are over 16 years of age. In the Bureau's opinion the law could with propriety and with distinct advantage be made to contain such a requirement. Great difficulty is now often encountered in determining whether an applicant is actually a minor, it not being easy to say positively that a person who appears to be over 21 is not slightly under that age. Many apply claiming to be minors who are undoubtedly from 25 to 35 years of age. The law should not only fix the age at 16 years, an age more easily recognized, but should, in the Bureau's opinion, specify that any doubt concerning the question shall be authoritatively and finally settled by a physical examination made by a surgeon of the Public Health and Marine-Hospital Service.

A consideration of Table 3 (p. 206), which corresponds with Table 6 of last year's report, is essential to an understanding of the class described in Tables 1 and 2 as United States citizens. It will be noted that it has been necessary to insert in this table a new column in which to place the cases of "foreign-born children of natives." Of these, 1,113 have been admitted, principally at the port of San Francisco; in other words, nearly one-sixth of all the Chinese admitted claimed membership in this new class. The remainder of the 2,530 alleged American citizens shown by said table consists of 53 persons of whose departure from this country there was no record, a class known as "raw natives," and 1,364 persons of whose departure from the country there was a record, a class known as "returning natives." Of the latter, status as native born had been determined previously in 913 cases, and was determined at the time of admission in 451 cases. Table 2 shows that 98 alleged wives of natives have been admitted. While such women are not citizens, their admission is necessary upon the principle that a citizen is entitled to have his foreign wife with him in this country. In many instances it is found that these alleged wives are imported for immoral purposes. During the year 254 alleged natives and 2 alleged wives of natives have been rejected and deported.

There is no feature of Chinese immigration that has commanded so much attention and caused so much trouble to administrative officers as that constituted by these so-called "natives born." Since the Supreme Court rendered its decision in the Wong Kim Ark case (169 U. S., 649), it has been necessary to recognize as American citizens Chinese born in the United States; and now that the second generation of the class is coming forward in such numbers the matter becomes more grave than ever. Thousands of Chinese have availed themselves of this claim and "established" American birth by fraudulent means. Almost uniformly these citizens marry in China, or else pretend to have done so, and then claim for their wives the privilege of free entry to the United States and for their children the rights of American citizenship. In this connection it is interesting to note a report in the public press that China has recently issued an edict under which all persons of this character are declared to be subjects of the Chinese Empire. They indeed seem, therefore, to constitute a privileged class, enjoying as they do all of the rights of American citizenship and the protection that goes therewith, and at the same time being able to claim, when absent from the country of which they could not become citizens otherwise than by the accident of birth, the protection of the country of which their parents or grandparents were subjects and to which they really, perhaps, more properly belong. This matter deserves careful attention, for not only is it a serious evil at the present time, but it is one which will constantly be increasing unless some statutory remedy is adopted changing the rule by which, or specifying a high class of evidence on which, the claim of citizenship shall be determined. (See also quotation from Commissioner North's report, p. 227.)

It will be noted from Table 4 (p. 206), which corresponds with Table 5 of the report for 1908, that during the past year the Department has considered 409 appeals in Chinese cases, of which 51 were sustained, 245 dismissed, 83 withdrawn or disposed of otherwise than by departmental decision, and 30 remain pending.

Table 5 corresponds with Table 4 of the report for 1908, and covers the departure and return of registered Chinese laborers, showing that 1,102 have left the country after applying for and receiving return certificates under which they may later reenter, and that 950 have reentered on return certificates previously granted. This is one class with respect to which the Bureau believes, as pointed out more particularly elsewhere (p. 227), the law is unnecessarily rigid. It is known that a great many registered Chinese laborers leave the country without qualifying for return, because they prefer to take their chances of smuggling across the border or returning as seamen and deserting, rather than to incur the trouble of procuring a return certificate.

Table 6 (p. 207), which was numbered 3 in the report for 1908, is compiled from statements furnished by United States marshals concerning Chinese arrested on judicial warrants. During the year, 836 Chinese have been so arrested, compared with 912 for the previous year. There remained pending from the year 1908, 445 cases; so that the total number of cases under consideration during the past year has been 1,281. Of these, 39 died or escaped, 189 were discharged, 665 were deported, and 388 cases remain pending. Table 7 (numbered 3A in the report for 1908) shows the districts in which the 836 arrests were made and compares with the figures those for the preceding year. During the past year, as for several immediately agreements with the various steamship and railway companies, entered into for the purpose of giving effect to the laws and regulations without any undue interference with a free commercial intercourse between Canada and this country. Beginning with the next fiscal year the enforcement of both sets of laws will be under the general supervision of the United States commissioner of immigration for Canada, whose headquarters are located at Montreal. During the past fiscal year, however, the said commissioner has been in charge of the enforcement of the immigration law only, the administration of the Chinese-exclusion laws being vested in the various inspectors in charge whose districts abut on the boundary and inspectors in charge of the several border ports of entry for Chinese. Concerning the first, therefore, extracts are given from the report of the commissioner, while with respect to the latter it is necessary to quote from a typical report of the inspectors in charge.

The part of the report of the commissioner for Canada which is deemed of particular interest reads as follows:

As suggested in my last annual report, in order that the work performed may be easily understood * * * it is deemed necessary to adhere to the plan of dividing the total number of aliens examined into classes.

Class A. Aliens manifested on board steamships and examined at ports of arrival under the immigration laws of the United States:

Number examined at Canadian Atlantic seaports	14,218
Number examined at Canadian Pacific seaports	1,521
Total	15,739
Number debarred and causes therefor—	
Feeble-minded	2
Epileptics	2
Insane	5
Tuberculosis	2
Trachoma	51
Other dangerous contagious diseases	2
Likely to become public charges	39
Contract laborers	9
Guardians to deported aliens, section 11	5
Under 16 years of age, unaccompanied by parents	13
Criminals	6
Under provisions of Chinese-exclusion act	4
Total debarred	140
Percentage of Class A debarred	0.9

The accompanying tables contain detailed information as to the number of aliens brought by each steamship line, such tables also showing, by lines, the percentage of arrivals failing to measure up to the standard of fitness demanded by our laws.

Class B. Aliens coming originally to Canada, and who sought entry to the United States within one year from date of arrival:

Total number examined	6,480
Number debarred	319
Percentage debarred	4.92

Class C. Aliens who entered Canada via United States ports, and aliens from the United States who sought reentry thereto within one year:

Total number examined	9,962
Number debarred	429
Percentage debarred	4.30

Class C C. Aliens claiming residence of more than one year in Canada, but who were unable to give satisfactory proof thereof:

Total number examined	4,649
Number debarred	174
Percentage debarred	3.74

Class D. Aliens who applied for admission to the United States after a residence of more than one year in Canada, the transportation companies being exempt from payment of head tax as to this class:

Total number examined	13,784
Number debarred	788
Percentage debarred	5.71

Class E. Citizens of Canada entering the United States for permanent residence:

Total number manifested	34,689
Number debarred	1,452
Percentage debarred	4.18
Total number examined at border stations (including Chinese)	71,339

Number debarred and causes therefor—

Idiots	3
Imbeciles	1
Feeble-minded	10
Epileptics	7
Insane	37
Tuberculosis	36
Trachoma	568
Favus	5
Other dangerous contagious diseases	36
Beggars	48
Likely to become public charges	1,324
Surgeon's certificate	152
Contract laborers	599
Under 16 years of age, unaccompanied by parents	20
Assisted aliens	15
Criminals	64
Polygamists	18
Prostitutes	97
Procurers	35
Guardians with deported aliens, section 11	25
Under passport provision, section 1	62
Chinese excluded	103
Total debarred	3,265
Percentage debarred of border classes	4.57

In addition to diseases found among the border classes compelling exclusion of the afflicted, the medical examiners also show 1,273 cases having minor physical defects which in many instances contributed to the cause for excluding the applicant.

Augmenting the number of aliens examined at border stations whose debarment was necessary under the law, those stations report a total of 2,022 aliens who were refused examination because of inability or unwillingness to meet the requirements of rule 25 of the regulations pertaining to the matter of head tax.

There must also be added to the number excluded at the border, a total of 1,195 aliens who were held for boards of special inquiry, but who failed to report for examination.

In the foregoing figures are included 1,775 Chinese necessarily mentioned in this report by reason of head tax being assessed through this office.

Grand total examined	90,295
Grand total debarred	6,622
Percentage debarred	7.33

While the above record shows that officers in this jurisdiction, as per the requirements of our immigration laws and regulations, examined a total of 90,295 aliens, it is considered worthy of note that the latter were selected from nearly 8,000,000 regular passengers who crossed the Canadian border into the United States during the twelve months to which this report alludes.

The amount of head tax collected during the same period was $134,650, showing a decrease of $49,578 from the collections for the fiscal year previous.

Manifests received from the Canadian trans-Atlantic and trans-Pacific lines show that 4,703 alien passengers departed from the United States during the past year by the Canadian route.

While immigration of all classes through and from Canada to the United States for the past year, shows an increase of 10,719, yet as compared with preceding years, the records for the year just closed present some peculiar phases. Arrivals of United States destined aliens at Canadian seaports for two years were as follows:

	1908.	1909.	Decrease.
			Per cent.
Atlantic ports	17,381	14,218	18.19
Pacific ports	1,724	1,521	11.77

This falling off in immigration to the United States via Canadian seaports can perhaps be explained by the decrease in all immigration to Canada from abroad, due to the restrictions by which the Dominion immigration officials have set out to improve the standard of present day immigration to their country.

The records for Classes B, C, C C, D, and E, for two years, however, can not be so easily and naturally explained.

	1908.	1909.	Increase.	Decrease.
			Per cent.	*Per cent.*
Class B	14,866	6,480		56.41
Class C	13,599	9,962		26.74
Class C C		4,649	100.00	
Class D	12,250	13,784	12.52	
Class E	18,111	34,689	91.53	

The difference in the figures as regards Classes B and C might be explained in part, when we consider that restricted immigration to Canada has created a greater demand for the labor of those already here; but decrease of immigration of these classes is largely attributable to the increase shown in Classes C C and D, the first claiming residence of more than one year in Canada though unable to show any proof thereof, and the second having convinced the examining officers of a residence in Canada to exceed one year—in other words, the increase is all in the direction of evasion of the head-tax requirements.

Reference to Class E above, shows a remarkable movement in the number of Canadian citizens coming to the United States for a permanent settlement, the increase approximating 92 per cent over the fiscal year of 1908. * * * Should those interested in statistics inquire for a cause for the above exodus of Canadians to the United States, it may be stated, as a result of careful questioning for manifest purposes, that, in many instances, the claim is made that native workmen are being replaced by those brought into Canada under the Government's immigration policy, and to accept this explanation is not difficult when we recall conditions existing in the United States, where in many of the great manufacturing centers, particularly in the New England States, native help has been entirely superseded by the foreign article.

In addition to the foregoing, there is an element in the travel from Canada to the United States, in which I feel our Bureau will be especially interested, reference being had to citizens of our own country who, having settled in Canada, return to again take up their residence in the United States.

Commencing with January 1 of the current year, a record has been compiled, showing that 6,869 of such citizens were interviewed by our officers during the past six months, and as containing important information, it has been directed that a similar record be obtained in the future. As the foregoing record covered that period of the year when the movement would naturally be northbound, I feel it perfectly safe to say that not less than 15,000 American citizens returned from Canada within the year to resume residence in the United States.

As to quality of the immigration reported in the foregoing, some improvement is shown as compared with the immigration of preceding years. Particularly is this true as regards aliens coming to Canadian Atlantic ports, when the record for unfitness is shown to be less than 1 per cent of the total arrivals. This improvement can not be attributed to any less rigid enforcement of the laws by the Bureau's officers at the ports mentioned, but may be credited to the greater care exercised by the steamship lines in selecting their passengers, the latter in large measure resulting from instructions from the Dominion immigration department to its officers whereby aliens disembarking at Canadian Atlantic ports are more carefully scrutinized than ever before. The percentage of unfitness among aliens applying for admission at border stations, however, evidences little or no change, the record for the past year showing that more than 7 per cent of the total were rejected, which corresponds practically with the record for former years.

It is felt that the Bureau may regard with interest the following table * * * showing the success which has attended the efforts of Canadian border officers to apprehend and bring to justice offenders against the immigration law.

Civil actions and prosecutions.

Name.	Section of act Feb. 20, 1907, violated.	Disposition.
Cecil Roosevelt, Gertrude Baird, and Ella Fox.	8	Pending.
Giovanni Inglesi	8	Guilty; sentence suspended.
H. L. Jenkins Lumber Co	4	Pending.
Samuel Scott	3	Not guilty.
Mrs. Elbertha Blount	3	Guilty; 1 day, $150.
Herbert Wright	8	Nolle prossed, account refusal prosecuting witness, resident Canada, to attend.
Francis Taggart	3	Guilty; 6 months, $200.
Eva Johnson	3	Guilty; 6 months, $150.
Clara Lewis	3	Nolle prossed, account death prosecuting witness.
Ella Wright	3	Not guilty.
Gelardo Spanula	3	Defendant failed to appear for trail; bondsmen held for $2,500 and costs.
Madame Lemoine	3	Guilty; 10 days, $2,000.
Henry White	3	Guilty; 2 years, $25.
Edward Crozier	3	Not guilty.
Joe Ruffino	3	Guilty; 3½ years, $1.
Madeline Gould	3	Guilty; 1 day, $50.
William Schmidt	3	Indictment quashed account U. S. Supreme Court decision.
Georga Reilly	3	Nolle prossed account U. S. Supreme Court decision.
R. J. Northrup	4 and 5	Pending.
American Express Co	4 and 5	Compromised by defendant paying $500.
William Schmidt	3	Not guilty.
Robert Foote	19	Pending.
Warren Cole	3	Prosecution defeated by defendant marrying prosecuting witness.
Flossie Rankin	3	Guilty; 1 day, $250.
Leona Wells	3	Not guilty.
Edith Fisher	3	Do.
Jack Everetts	8	Warrant arrest issued; case dropped, lack evidence.
Burt and Mabel Clark	3	Prosecution defeated by death of defendant Burt Clark.
Mrs. Jessie Bartlett	3	Nolle prossed; Supreme Court decision.
Emma King	3	Do.
Margaret Elliott	3	Not guilty.
Frank Scalzo	3	Do.
Madame Mary Gain	3	Nolle prossed; Supreme Court decision.
Winnie Anderson	3	Do.
Thomas Olsen	8	Guilty; fine $150.
Alexander Weldon	3	Nolle prossed; defendant married prosecuting witness.
John Erwin Moore	8	Not guilty.
Draico Dazoff	25 and 5392, Rev. Stat.	Guilty; 2 weeks, $1.
American Locomotive Co	4 and 5	Pending.
Ida Lewis	3	Guilty; 2 years, $250. Fine paid; remainder sentence suspended.
Mrs. Laura Roland	3	Guilty; 2 years, $100.
Frank Rice	3	Guilty; 3 years, $1,000.
Rocco Labazitti	3	Guilty; 4 months, $1.50.
Thomas Thompson	8	Pending.
Giovanni Di Stasi	3	Do.
Max Miller	3	Do.
Jake Grinwald	3	Do.

The Supreme Court ruling which so curtailed the efforts of federal officers in the matter of prosecuting persons charged with harboring immoral women necessitated discontinuance of many cases where conviction and punishment were well merited; yet, notwithstanding, I am confident that the campaign waged by the Bureau against the importation of alien girls and women for immoral purposes, along the entire northern frontier, has had a most wholesome effect. It is thoroughly realized, however, that the above classes are both crafty and unscrupulous and that constant vigilance is demanded from every officer to prevent nullification of the good work already done.

By virtue of authority contained in department warrants, inspectors in this jurisdiction during the past fiscal year returned to the countries whence they came 256 aliens, a few of which surreptitiously entered the country, but most of which number became deportable under our laws within three years from date of landing.

It is extremely gratifying to be able to again assure the Bureau that conditions pertaining to oriental immigration through the British Columbia doorway continue most satisfactory. Through rigid adherence to the rule promulgated by the Dominion immigration department, whereby all orientals holding passports to the United States are compelled to disembark at a United States port, and owing to the arrangement whereby restriction of Japanese and Hindu immigration to Canada has been effectively brought about, violations of our laws along the Washington boundary have been reduced to a minimum. In view, however, of the large number of orientals already domiciled in British Columbia, it will be appreciated that relaxation in the border inspection work as now enforced would be most unwise, for such action would only invite infractions of our immigration laws. * * *

In the judgment of the writer, that provision of the present immigration act which exempts the carrying line from payment of head tax in respect of all aliens who have had an uninterrupted residence of one year in Canada should be repealed.

Those who mistakenly argued that such a provision be given a place in the present law were sure that it would make for a freer intercourse between the people of Canada and the United States. As a matter of fact, its workings have been directly contrary to this idea.

Our present immigration law is so drawn as to make all aliens, excepting representatives of foreign governments, amenable to its provisions; those from Canada claiming more than one year's residence in that country—hence being nontaxable—requiring precisely the same examination as those for whom head tax is assessed.

It is left for those interested to imagine what a task is imposed upon the Bureau's officers in this jurisdiction, who are first required to separate the above classes and then to obtain proof of residence of those claiming exemption from payment of head tax by reason of an uninterrupted sojourn of one year in Canada. This latter provision of the law has only put a premium upon falsehood, and despite the efforts of the Bureau's officers to enforce the act as directed, it is firmly believed that the very first requirement of the present law, to wit, "that there shall be levied, collected, and paid a tax of $4 for every alien entering the United States," is constantly being violated by the deceptions practiced by aliens seeking entry to the United States from Canada.

I respectfully submit that only the slightest reflection is required to justify the conclusion that the phase of the law now being discussed is a positive hindrance to travel from Canada to the United States; is calculated to establish classes among aliens where all should be treated on a common footing; and lastly, on account of the difficulty in proving residence of aliens in Canada, is quite incapable of enforcement as Congress intended.

* * * * * * *

Through the courtesy of the superintendent of the Dominion immigration department, I am enabled to invite the attention of the Bureau to the record of immigration to Canada for the fiscal year ended June 30, 1909, such record being as follows:

Month.	British.	Continental.	United States.	Total.
July	4,674	2,177	4,479	11,330
August	3,708	1,690	4,684	10,082
September	3,655	1,748	4,689	10,092
October	2,994	1,510	4,585	9,089
November	1,584	1,418	4,028	7,030
December	1,011	1,087	2,862	4,960
January	770	1,031	2,296	4,097
February	1,021	1,150	2,620	4,791
March	4,327	2,955	9,182	16,464
April	6,584	5,044	12,609	24,237
May	10,577	7,346	11,107	29,030
June	6,502	5,159	9,208	20,869
Total	47,407	32,315	72,349	152,071

For easy comparison of emigration from the United States to Canada with immigration from Canada to the United States during the past year, the showing of our records regarding the number of aliens admitted is given:

Aliens manifested on board steamship and examined at ports of arrival under the immigration laws of the United States	15,417
Aliens coming originally to Canada, and who sought entry to the United States within one year from date of arrival	6,116
Aliens who entered Canada via United States ports, and aliens from the United States who sought reentry thereto within one year	9,495
Aliens claiming residence of more than one year in Canada, but who were unable to give satisfactory proof thereof	4,454
Aliens who applied for admission to the United States after a residence of more than one year in Canada, the transportation companies being exempt from payment of head tax as to this class	12,920
Citizens of Canada entering the United States for permanent residence	33,118
Total	81,520
To which there should be added United States citizens returning to the United States after residence in Canada, approximated	15,000
Total	96,520

Inspector Harry R. Sisson, in charge for several years of the New York-New Jersey district and of the ports of entry for Chinese of New York City and Malone, N. Y., has submitted a concise report, from which the following, with regard to the enforcement of the law on the border, is quoted:

> There were 530 applicants for admission at Malone, 41 at New York, and 3 at Buffalo, the number at Malone being by far the largest handled at that port during any one year and an increase over the preceding year of about 35 per cent, this being about the corresponding increase of the general work in this district. In addition to those applying for admission, the privilege of transit was granted to 956 at Malone and 309 at this port. * * * During the year, 109 Chinese were arrested in the district, and complaints filed before United States commissioners charging them with being unlawfully within the United States, which with 19 pending from the preceding year, made a total of 128 considered, of which number 53 were discharged, 25 actually deported, 6 awaiting deportation, 14 forfeited bail, and the remainder pending at the close of the year.
>
> While this report shows that about 50 per cent of the Chinese were ordered deported by the United States commissioners, I would call attention to the fact that of the 49 cases taken before [three of the] commissioners * * * in the northern district of New York, 30 were discharged, 3 ordered deported, and 16 [remain] pending. The results obtained before [another] commissioner * * * who ordered 19 deported out of 25 cases considered, have been very satisfactory, yet no more than the Government is entitled to when the general conditions and the character of the evidence offered in these cases in that district are taken into consideration.
>
> The number of vessels arriving at this port having Chinese aboard as members of the crew has steadily increased during the last several years, there having been 194 vessels in port during the past year, with 2,906 Chinese employed thereon, this being an increase of 58 vessels and 535 Chinese over the preceding year. Of this number, there were 14 escapes from 8 vessels, the masters of which were indicted with but two exceptions.
>
> As I have outlined in preceding reports, it is practically impossible to convict a master of a vessel under the present statute unless we are able to show gross neglect or connivance upon his part, and it is also very difficult to bring this class of case to trial for the reason that the courts refuse to interfere with commerce by compelling a master to remain in port.
>
> The general work along the Canadian border, particularly at Buffalo, in connection with the prevention of the smuggling of Chinese, has been very gratifying, there having been arrested in the latter city 28 Chinese and 10 white men, some of the most notorious smugglers in that vicinity being included in this number. Action against the following named persons has been taken for aiding and abetting the unlawful landing of Chinese:

BUFFALO, N. Y.

Charles Roth, convicted November 30, 1908; sentenced to seven months in Erie County Penitentiary.

Thomas Roach, pleaded guilty November 30, 1908; sentenced to sixty days in Erie County Penitentiary.

Henry Reischel, convicted November 30; sentenced to seven months in Erie County Penitentiary.

Charles Slosberg, convicted November 30; fined $250.

Thomas W. O'Brien, pleaded guilty December 4; sentenced to one year in Erie County Penitentiary.

William Riley, pleaded guilty December 4; sentenced to one year in Erie County Penitentiary.

Edward Baltz, indicted January 19, 1909. (In Canada.)

Charles Friese, held for grand jury March 27; $500 bail.

William Dickman, held for grand jury March 27, $500 bail.

George White, held for grand jury April 17; $1,000 bail.

Harry Lee, held for grand jury April 17; $1,000 bail.

Frank Roth, indicted by grand jury. (In Canada.)

MALONE, N. Y.

Napoleon Labonty, pleaded guilty June 10; sentenced to six months in Broome County Jail.

Joseph L'Aventure, indicted by grand jury; $5,000 bail.

NEW YORK, N. Y.

Cardo Lorenzo, pleaded guilty April 13; sentenced to one month in New York County Jail.

On the 1st of July, 1907, the Mexican border from the Gulf westward to the California line was placed under a supervising inspector, whose experience and record in the service had been such as to assure the Bureau that he would be able to cope with the extremely difficult task of bringing about a systematic, uniform, and efficient administration of both sets of laws on the southern boundary. This expectation has not been disappointed. The improvement effected in the two years of Mr. Frank W. Berkshire's administration, and particularly in the past year, is almost incalculable. The following, quoted from his report, will show in a general way what has been accomplished with both laws during the year:

> * * * Legitimate immigration over the southern land boundary is largely confined to Mexicans and aliens of other races who have acquired a residence in Mexico and thereafter come to the United States. This class of immigration shows an increase from year to year as the territory adjacent to the boundary becomes more thickly populated. It is scarcely to be expected, however, that there will be in the near future any large increase in the legitimate immigrant arrivals by way of the Mexican border.
>
> As pointed out in the previous year's report, the notable examples of illegitimate immigration via the ports of this district have been in the past Japanese and Syrians, whose advent into Mexico was caused principally by the idea that the said country afforded an easy means of securing ingress to the United States. During the year just ended, Syrian arrivals in this district have experienced a large falling off, and there is no evidence now at hand to indicate that there is likely to be any increase in this character of immigration by way of the Mexican border district for some time to come. It seems therefore but fair to assume that the prediction previously made, to the effect that Syrian immigration would naturally show a diminution when the impression was removed at the seaports of southern Europe that the Mexican route afforded the most favorable means of entry into the United States, has been borne out and that the undesirable of that race are at last realizing that the extra expense attending their passage from their native country to the United States through Mexico is not justified.
>
> It is distinctly gratifying to this office, and will doubtless prove so to the Bureau, to note that with the agreement had between the United States and Japan, combined with an alert administration of the law on the part of our officers, Japanese immigra-

tion through this district has been reduced to the minimum, and, as pointed out one year ago, there is no reason to believe that under the existing arrangement Japanese immigration can prove in any way a source of embarrassment to our service. * * *

Criminal prosecutions and civil suits were instituted within the Mexican border district during the fiscal year just ended for violations of the immigration laws as follows:

Criminal prosecutions.

Name.	Section of act Feb. 20, 1907, violated.	Disposition.
Harry Lockfeesh	3	Discharged by United States commissioner.
Jesus R. Pesquera	3	Grand jury refused to indict.
Tomas Valdez	8	Six months' imprisonment.
H. C. Kitamura	3	Do.
Simon Chavez	3	Indictment quashed.
Zacarias Holquin	3	Discharged by district court.
Pedro Padella	3	Do.
Teodoro Villescas	3	Discharged by grand jury.
Mateo Avila	3	Discharged by district court.
Tom John	Bribery	Bond forfeited.
Apolinio Florez	3	Discharged by district court.
Refugio Ruiz	3	Discharged by commissioner.
Ramon Zamora	8	Bound over to fall term.
Juan Lopez	8	Six months' imprisonment.
Jose Flores	8	Do.
Francisco Ruiz	3 and 8	Bound over to fall term; section 8 only.
Justino Lopez	3	Discharged by United States commissioner.
Manuel Salazar	3	Four years' imprisonment.
William French	8	Bound over to fall term.
Pedro Moran	8	Do.
Cecilio De Leon	8	Do.
Deamaso Guzman	8	Do.
Ramon Arroyo	8	Do.

Civil suits.

James McCoy	4	Continued to December, 1909.
A. H. Boyt	4	Compromised by payment of $250 and costs.
St. L., B. & M. Ry. Co	4	Continued to December, 1909.

* * * * * * *

By direction of the Bureau this office detailed two inspectors for special investigation work in the Mexican border district in the enforcement of those provisions of the immigration laws relating to the "white-slave" traffic. This office is pleased to report that the work is being conducted with commendable zeal and meeting with success, and it is believed that this investigation will have the effect of accomplishing at least a temporary eradication of the evil in this section of the country. To effect a permanent solution it will, of course, be necessary to continue an active pursuit of lawbreakers of this character.

* * * * * * *

In view of the fact that there are no ports of entry for Chinese on this border, the work consists principally in the prevention of illegal entry of Chinese and the apprehension of such as escape detection at the time of crossing the border.

In addition to this feature of the work [784 Chinese have passed out of the United States at ports of this district, passing through the United States in transit, and 279 Chinese have entered at ports in this district to pass through the United States and out at other ports].

* * * * * * *

Investigations have been made as follows:

Applications for laborers' return certificates	37
Applications for duplicate certificates of residence	19
Preinvestigations relative to status of merchants, alleged natives, and their children	13
Applications for admission at ports of entry in other districts	29
Total	98

* * * * * * *

During the year there was a total of 557 arrests [of Chinese], and in addition to this number 134 cases were pending before trial and 172 awaiting deportation or appeal at the close of the previous fiscal year, making a total of 863 cases considered. Of this number, it will be noted, 72 were discharged, 540 deported, 12 died, escaped, or forfeited bail, 135 are pending, and 104 were at the close of the year awaiting deportation or appeal. * * *

As pointed out in the last annual report, this office recognized that the most difficult proposition confronting it in connection with the enforcement of the Chinese-exclusion laws was the situation at El Paso, Tex. By reference to the report of actual arrests which occurred during the fiscal year 1908 as compared with the arrests for the fiscal year just ended, it will be noted that there has been a decrease. This is accounted for by the fact that the inspection on all lines of railways leading from El Paso has been made uniform and rigid, while during the previous year such inspections were, particularly in reference to freight cars, only periodical. Since rigid inspection of all trains has been undertaken contraband Chinese have been driven to more difficult and expensive means of effecting illegal entry; hence it naturally follows that a lesser number of attempts are made to use the more hazardous routes by which to reach the interior of the country.

There has been no change worthy of mention in respect to the manner in which Chinese cases are prosecuted at El Paso. This subject was recently treated in great detail in a special report addressed to the Bureau, and it would seem unnecessary to review conditions in that respect at this time. A comparison of pending cases, however, shows that at the close of the fiscal year just ended there were 122 cases pending in the western district of Texas, as against 116 pending at the close of the previous year, which would indicate that in this respect we are losing rather than gaining ground.

During the fiscal year 1908 there were 8 arrests made for violations of the exclusion laws, 6 of which cases were pending at the close of the said year. During the present year there were 32 such arrests, and, including those pending from the previous year, dispositions of the cases are as follows:

Convicted and sentenced	8
Fugitive from justice	8
Indictment dismissed and defendant permitted to accept order of deportation to China	1
Convicted, but granted new trial	1
Died before trial	1
Pending before trial	13
Acquitted	6
Total	38

The convictions secured during the year were important ones, and some of the defendants to be tried are among the leaders of smuggling operations at El Paso.

* * * * * * *

Considering the number of arrests accomplished for violations of the exclusion laws during the past year, the number of important convictions secured, the fact that a number of persons are now fugutives from justice, together with the rigid inspection of every avenue of escape (from El Paso in particular), it is the firm belief of this office that the effect during the year has been to reduce to a minimum the smuggling of Chinese who have never been in the United States before. But the unsatisfactory situation still exists in reference to Chinese who hold valid certificates of residence, but who have doubtless been out of the country and have effected an illegal entry at El Paso, as is evidenced by the number who appear at the office for the purpose of securing permission to leave the place. This subject has been fully presented to the Bureau on various occasions in the past, and there is no apparent necessity for dilating on same at this juncture. To eradicate this evil, one of two remedies is necessary—either increase the force to an impracticable extent or amend the law in the manner recommended in the last annual report.

A report showing very satisfactory conditions has been received from the inspector in charge of the important district of southern California, Mr. Harry H. Weddle, who was placed in charge of that section as a separate district in October, 1908. The report of Commissioner North, of San Francisco (the most important port in Chinese matters), is quoted elsewhere (p. 227), and the statistics for that, as well as for each of the other ports, may be found in the regular statistical tables (pp. 113–209).

IMMIGRATION STATIONS.

At none of the Atlantic ports except New York does the Government own and control its own landing station. The Ellis Island main building has now been in use since 1901, and each year has witnessed the erection of additional structures or the improvement and extension of those already existing. The station is now in many respects an ideal one, but because of the inconvenient and illogical manner in which the main building was planned when first constructed, changes still need to be made. This is clearly shown by the report of Commissioner Williams, elsewhere quoted (see p. 230).

Provision having been made by Congress for the establishment of government-owned stations at the ports of Boston and Philadelphia, careful attention has been given the matter of selecting suitable sites on which to locate such stations. Sites will no doubt be decided upon early in the ensuing year, and the contracts will then be let promptly and the construction of the buildings completed as soon as possible.

The situation with respect to proposed landing stations at New Orleans and Galveston remains practically the same as stated in last year's reports (p. 232). It was found necessary to defer any action regarding the station proposed for Charleston, by reason of the depleted condition of the immigrant fund.

The station on Angel Island, San Francisco Harbor, has been completed, but has not been occupied, the depleted condition of the immigrant fund during the past year and the fact that the service must in the forthcoming year be conducted within the limits of a fixed appropriation not being regarded as justifying the incurrence of the large additional expense involved in conducting the new quarters. The following is quoted from a report on this subject made to the Department on January 28, 1909, by former Assistant Secretary Wheeler, who personally inquired with regard to the expense that would be involved in opening the station and the question whether there was any necessity for its immediate occupancy:

> This is a modern and commodious plant, the construction of which has cost to date $189,721.76. Further expenditures involving approximately $10,000, comprising oil-burning equipment, outside electric wiring, laundry machinery, and artesian well, have been contracted for and are presumably now under construction, if not by this time completed. In addition it is roughly estimated that $20,000 will be required for furniture and kindred equipment. (See Acting Commissioner-General's memorandum of November 19, 1908, hereto attached.)
>
> The station is delightfully located, so far as scenic, climatic, and health conditions are concerned, but in my opinion is rather too remote from San Francisco, the trip from wharf to wharf consuming approximately forty-five minutes. Furthermore, in my opinion, the station is many years in advance of the requirements of the service, and, so far as European immigration is concerned, will not actually be required until trans-Atlantic steamers are passing through the Panama Canal.
>
> Commissioner North estimates that the opening of the new station would result in an increase of not more than $2,000 per month in the expenses of conducting the service at his port. (See his letter to the Commissioner-General dated October 16, 1908, hereto attached.) While I do not question Mr. North's good faith in making this estimate, experience teaches that almost invariably estimates of that nature are found to fall short of the expenditures eventually required to be made.
>
> I note that Mr. North makes no mention of one item which it seems to me is especially important, viz, the supplying of food to aliens who would be detained at the new station. It is not believed that this would be a self-supporting proposition as it is at Ellis Island, for at Angel Island there are no collateral opportunities to make the

business attractive as a financial enterprise. While the steamship companies would have to contribute a considerable sum to pay for the feeding of their passengers, nevertheless, in the last analysis, the Government would certainly be called upon, in one way or another, to bear a very considerable expense in this connection. My own opinion is that a fair estimate of the additional expense which would be entailed upon the Government by the opening of the new station would place that sum at about $50,000 per annum rather than at $24,000 per annum, the sum estimated by Mr. North. But even taking his figures, the additional expense would not be inconsiderable.

[It is recommended, among other things,] that a watchman be detailed from the Immigration Service to act as caretaker and watchman at the Angel Island station until such time as the volume of European immigration entering the port of San Francisco is sufficient to justify the Government in opening the station for the purposes for which it is intended.

Mr. Wheeler's recommendation was adopted by the Department.

FINANCIAL STATEMENT.

It has become customary to insert in this report a brief statement regarding the cost for the year of enforcing the immigration and Chinese exclusion laws, respectively. All of such expenses during the past year were paid from the immigrant fund. The following statement shows the several objects to which the $3,237,669.08 expended were devoted. The immigrant fund is now a thing of the past, for under the sundry civil appropriation act passed by Congress March 4, 1909, it was directed that after July 1, 1909, all head tax collected shall be deposited in the Treasury as miscellaneous receipts, and the expenses of regulating immigration and of enforcing the Chinese-exclusion laws, respectively, will hereafter be paid from an annual appropriation. The act mentioned stipulates that no more than $500,000 of the full amount appropriated shall be expended for the enforcement of the Chinese-exclusion laws. In the Bureau's opinion, it would be advisable in future appropriations for this object to completely merge the enforcement of the two sets of laws. It is all immigration business. To keep separate accounts for the Chinese part of it is of no particular advantage, and often is extremely inconvenient, as the same officers are, under the present practice, engaged upon both classes of work.

AMOUNTS EXPENDED FROM THE IMMIGRANT FUND DURING THE FISCAL YEAR ENDED JUNE 30, 1909.

Expenses of regulating immigration	$1,872,186.38
Enforcement of the Chinese-exclusion act, 1909	452,601.30
Immigrant station, Ellis Island, N. Y.:	
Remodeling main building	308,890.71
Additional buildings, contagious disease hospital group	181,198.22
Mechanical equipment, etc., contagious disease hospital group	102,188.45
Addition to old hospital building	219,322.50
New water main	189.97
Dredging new channel and construction of new docks	1,579.74
Immigrant station, San Francisco, Cal., construction of immigrant station	66,744.96
Immigrant station, Galveston, Tex., construction of immigrant station	10,766.85
Boarding cutter, immigration service, San Francisco, Cal., construction of steel boarding cutter	22,000.00
Total expenditures	3,237,669.08

THE BUREAU AT WASHINGTON.

The Bureau at Washington is the headquarters of the Immigration Service, in the comprehensive sense. From it are directed the operations of all the employees stationed throughout the United States and Canada, engaged in the enforcement of the immigration, the alien contract labor, and the Chinese-exclusion laws. Through and by it the Department announces the policies and directs the work as a whole. An account is given in the appendixes of the special work of the Divisions of Naturalization and Information, respectively (pp. 283 and 309); but it is necessary to a clear conception of the year's accomplishments that a few pages shall be devoted to recounting the activities and accomplishments of the Bureau proper. For a full description of its duties reference may be had to the reports for 1906 (pp. 576–581).

The work of the Bureau is constantly on the increase. Every one of the frequent changes in practice, whether brought about through legislation, judicial determination, or administrative discretion, immeasurably enlarges its duties, by taking it from the known and beaten course and starting it where each step must be studied and measured with caution. The volume of its work can not be gauged by the increase or decrease in the number of aliens entering the country. Thus, although the year 1908 showed the smallest immigration since 1902, the figures covering the work of the Bureau for that year indicated an increase in its volume of 17.8 per cent over the year 1907, during which the immigration was 64 per cent heavier. Likewise there was in 1908 an increase of 29 per cent over the year 1906, when immigration was more than 40 per cent heavier. The nature of its duties is such that they can not be adequately expressed in figures, and the following statements dealing with some of the larger items which permit of classification are only illustrative at best.

Under the provisions of rule 42 of the Chinese regulations applications for certificates of residence have been considered and disposed of during the fiscal year ended June 30, 1909, in the manner indicated by the following statement:

Cases pending	42
Cases reopened	6
Applications	211
Total	259
Duplicate certificates of residence issued	151
Original certificates of residence found	1
Applications denied	42
Applications dropped	21
Applications pending	44
Total	259

The duplicate copies of all Chinese certificates of residence issued under the registration acts of 1892 and 1893 are on file in the Bureau, in charge of an officer designated at the time the Department of Commerce and Labor was organized to perform the duties theretofore devolving upon collectors of internal revenue throughout the country, with respect to the issuance of original and duplicate certificates and the verification of the certificates presented by laborers leaving the

United States with the intention to return. In addition to the 259 applications for duplicates above enumerated, verification has been had of the certificates presented by the 1,102 Chinese laborers, shown by Table 5 (p. 207) to have left during the year, and of many others desired for use as evidence in cases pending in court or elsewhere, and it has been necessary to furnish for like purposes a large number of certified copies of duplicate certificates or of applications therefor.

Appeals from decisions excluding aliens, under the immigration laws, from admission into the United States have increased from a total of 1,630 for fiscal year 1908 to a total of 1,877 for the year just closed. Applications for admission under bond during the same period have decreased from 1,215 to 443. This makes a total of 2,320 cases brought to the Bureau and presented by it to the Department with appropriate recommendation for approval or disapproval of the action of the inspection officers. Table 4 (p. 206) shows that in Chinese cases there have been 409 appeals. All of the appeals—ordinary immigration, contract-labor, and Chinese—must be given a most painstaking examination, involving, as they often do, close questions of law or complicated questions of fact, and the records in the last-mentioned two classes are usually voluminous because of the various matters involved. As already stated, the figures merely indicate in a very inadequate manner what the work of the Bureau is; to comprehend their full meaning, it is necessary to handle the work itself.

The respect in which the Bureau comes into closest contact with the field work consists of its duty in connection with the arrest and deportation of aliens who enter the country contrary to law or become public charges within three years after entry from causes existing previously. The power to arrest and deport is an extraordinary one to be vested in administrative officers, and its exercise requires great care and deliberation. No warrant is issued by the Department without the Bureau's specific recommendation, and no such recommendation is made where a warrant of arrest is applied for unless a good prima facie case has been set up by the inspector submitting the application, or where a warrant of deportation is sought, unless it is clearly shown by the evidence submitted and adduced at the hearing accorded under the arrest warrant that the arrested person is an alien and is subject to deportation. No abuse of discretion would be countenanced for a moment, for the Bureau realizes too fully the gravity of the matter. In order that this feature of the work may be clearly presented, it is customary to insert at this point a table compiled from the records of the Bureau, and consequently dealing with the subject much more comprehensively than is otherwise practicable (Annual Reports, 1908, pp. 262–265). It is a source of great disappointment to the Bureau that the said table must be omitted from this report; but, as will later appear, the force of employees at its disposal has been worked to the limit in the performance of absolutely essential duties, and the compilation of the table in question is only one of several important items which it has been impossible to accomplish. It may be stated, however, as a general indication of the extent to which this work has increased, that during the past year the Bureau has had to pass upon 3,237 applications for warrants of arrest, compared with 3,026 in the year 1908. These applications were divided, as to cause for the request, approximately as follows:

Google

Criminals, 197; prostitutes and procurers, 732; public charges, 1,353; contract laborers, 314; entry in violation of passport provisions (Japanese and Korean laborers), 80; illegal entry, otherwise, 561.

The work indicated by the foregoing, and much more which it is impossible to describe, has been accomplished with a force of employees made up as follows:

The Commissioner-General and Assistant Commissioner-General and chief clerk..	2
Private secretary to Commissioner-General	1
Law division (chief, 2 law clerks, and 2 stenographers)	5
Chinese registration division (chief)	1
Correspondence division (chief and 9 clerks and stenographers)	10
Accounts division (chief and 5 clerks and stenographers)	6
Files and records division (chief and 7 clerks and stenographers)	8
Statistical division (chief and 6 clerks and stenographers)	5
Two messengers and 1 assistant messenger	3
Total	41

In order that the work might not fall seriously in arrears (and as it deals with human beings it can not be allowed to lapse), it has been necessary during the entire year to have 9 clerks detailed from other offices, and even with that accretion to require all the employees to work extra hours. Therefore, if the manifestly correct policy of keeping all of the affairs of the service under close supervision from a centralized headquarters is to be continued with success, it will be necessary that Congress shall supply such headquarters with sufficient clerks to carry on the work involved. Any change in that policy would be a backward step; in fact, in the Bureau's opinion, there must, to meet the ends of good administration, be brought about a more complete and minute centralization than has heretofore been possible, so that the enforcement of the laws may be placed upon an absolutely uniform basis and the officers throughout the country be kept in constant touch with the administration at Washington.

CONCLUSION.

The Bureau never fails in its annual reports to call attention to the high estimate it places upon the character and capacity of its employees, as a whole and taken individually, and to its appreciation of their loyalty, zeal, and industry. The work upon which they are engaged is quite different from that performed by many other classes of government employees. They handle human beings, and must, in order to be successful in the highest sense, exhibit qualities of mind and heart that have no particular place in the handling of books, papers, or commodities. The ideal immigrant inspector, or government doctor (for the Bureau always includes in such expressions as these the surgeons of the Public Health and Marine-Hospital Service who so ably assist in its work), must know the law and have an abiding belief in its enforcement, must be rigid and exacting in his investigations and yet kindly and courteous in his attitude toward aliens, must often perform not only difficult but dangerous duties in the regular course of his employment, and must constantly exercise a wise discretion and a discriminating estimate of human nature if he expects to enforce the law without giving unnecessary offense. It is not every man who possesses all or even any of these qualities; nor is the Bureau able to say that each of its employees does, but it believes that no other body of men could be brought together in which a larger proportion would be found to meet the requirements.

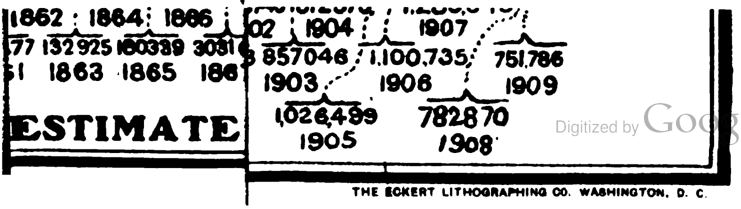
The duties of the Bureau constitute a great and growing work. Each year added experience throws additional light on the subject and makes possible the further perfection of methods of administration. The past year has been peculiarly fruitful in this respect, and the Bureau feels that it enters upon the ensuing year with every reason to expect to make during its course a record in the enforcement of the laws which will eclipse that of all preceding like periods. If the law can be strengthened in the several respects contemplated in the suggestions herein contained, the opportunity and means of effecting the exclusion of the undesirable will have been so increased that, with the employees and machinery at its command, the Bureau should be able to attain an almost ideal performance of its duties.

The Bureau momentarily looks backward, as in this summary of the year's work, that it may gain warning and inspiration from the experiences of the past; at the same time it is proceeding with the present performance of the daily task with such ability and light as have been vouchsafed it, and is looking and moving always toward the future in its hopes and plans and expectations, in the firm belief that to-day is better than yesterday and that to-morrow will surpass to-day. Thus it looks to the future, not to the past; moves forward, not backward.

Respectfully,

DANL. J. KEEFE,
Commissioner-General.

To Hon. CHARLES NAGEL,
Secretary of Commerce and Labor.



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APPENDIXES.

APPENDIX I.

DRAFT OF PROPOSED NEW IMMIGRATION ACT.

AN ACT To regulate the immigration of aliens to and the residence of aliens within the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the word alien wherever used in this Act shall include any person not a native born or naturalized citizen of the United States; and the term United States wherever used in this Act shall include any waters, territory, or other place under the jurisdiction thereof, except the Isthmian Canal Zone. This Act shall be enforced in the Philippine Islands by officers of the general government thereof designated by appropriate legislation of said government: *Provided*, That nothing in this Act shall be construed to apply to accredited officials of foreign governments nor to their suites, families, or guests: *Provided further*, That if any alien shall leave the Canal Zone and attempt to enter any other place under the jurisdiction of the United States, he shall become subject to the provisions of this Act at such other place.

SEC. 2. That there shall be levied, collected, and paid a tax of four dollars for every alien who shall come to the United States. The said tax shall be paid to the collector of customs of the port or customs district to which said alien shall come, or, if there be no collector at such port or district, then to the collector nearest thereto, by the transportation line or by the master, agent, owner, or consignee of the vessel, or other conveyance or vehicle bringing such alien to the United States, or by the alien himself if he does not come by a transportation line, vessel, or other conveyance, or vehicle. The said tax shall be a lien upon the vessel, or other vehicle of carriage or transportation bringing the alien to the United States, and shall be a debt in favor of the United States against the owner of such vessel, conveyance, or vehicle, and the payment of such tax may be enforced by any legal or equitable remedy: *Provided*, That the said tax shall not be levied upon aliens who are citizens of the Dominion of Canada, Newfoundland, the Bermudas, the Republic of Cuba, or the Republic of Mexico, nor upon otherwise admissible residents of any possessions of the United States, nor upon aliens in transit through the United States, nor upon aliens visiting the United States as tourists or temporarily for business or pleasure, nor upon aliens who have been lawfully admitted to the United States and who later shall go in transit from one part of the United States to another through foreign contiguous territory, nor upon aliens employed on vessels who are brought to and are shown to depart from ports of the United States in the pursuit of such employment; but, to insure against evasion of said tax under these exceptions, the Commissioner-General of Immigration may require the deposit of such tax, to be refunded only upon proof of departure of the aliens affected: *Provided further*, That said tax shall not be levied upon aliens arriving in Guam, Porto Rico, or Hawaii; but if any such alien shall later arrive at any port or place of the United States on the North American continent the provisions of this section shall apply: *Provided further*, That said tax when levied upon aliens entering the Philippine Islands shall be paid into the treasury of said islands to be expended for the benefit of such islands: *Provided further*, That the Commissioner-General of Immigration may by agreement with transportation lines bringing aliens from foreign contiguous territory arrange in some other manner for the payment of said tax.

SEC. 3. That it shall be the duty of the master or commanding officer of any vessel bringing aliens to any port of the United States to deliver to the immigration officials at the port of arrival manifests made at the time and place of embarkation of such alien on board such steamer or vessel, which shall, in answer to questions at the top of said manifest, furnish with regard to each alien accurate and full information in relation to the following: name, age, and sex; whether married or single; calling or occupation; personal description (including height, complexion, color of hair and eyes, and marks for identification); place of birth; whether able to read or write; country of which a citizen or subject; race; last permanent residence; name and address of nearest relative or friend in country from which alien came; seaport for landing in United States; intended future permanent residence; whether having a ticket through to final destination; by whom passage was paid; amount of money possessed by alien; whether going to join a relative or friend, and if so, what relative or friend, with name and complete address; whether ever before in the United States, and if so, when and where; whether ever in prison or almshouse, or an institution or hospital for the care and treatment of the insane or supported by charity; whether a polygamist; whether an anarchist; whether coming by reason of any offer, solicitation, promise, or agreement, express or implied, to perform labor in the United States; condition of health, mental and physical; whether deformed or crippled, and if so, for how long and from what cause. It shall be the duty of the master or commanding officer of every vessel sailing from ports in the Philippine Islands, Guam, Porto Rico, or Hawaii to any port of the United States on the North American Continent to deliver to the immigration officials at the port of arrival manifests made at the time and place of embarkation, giving the names of all aliens on board said vessel.

SEC. 4. That it shall be the duty of the master or commanding officer of every vessel taking passengers out of the United States to file with the immigration officials before departure accurate and full information in relation to the following matters regarding all alien passengers and all citizens of the United States departing with the stated intent to reside permanently in a foreign country taken on board: Name, age, and sex; whether married or single; calling or occupation; whether able to read or write; country of which citizen or subject; race; last permanent residence; intended future permanent residence; amount of money possessed; if a United States citizen, whether native-born or naturalized; and time and port of last arrival in the United States, all in accordance with regulations to be prescribed by the Commissioner-General of Immigration. It shall also be the duty of every such master to furnish to the immigration officials a statement in relation to the following matters regarding such passengers, aliens and citizens: number of males and females, respectively, under fourteen years of age; number of males and females, respectively, ranging from fourteen to forty-four years of age; and number of males and females, respectively, forty-five or more years of age. No master or commanding officer of any such vessel shall be granted clearance papers for his vessel until he has duly furnished such information and statement and made oath that they are accurate and full as to all matters herein required. It shall be the duty of immigration officials to record the following information regarding every alien and citizen leaving the United States by way of the Canadian and Mexican borders for permanent residence in a foreign country: name, age, and sex; whether married or single; calling or occupation; whether able to read or write; country of which subject or citizen; race; last permanent residence; intended future permanent residence; amount of money possessed; and if a United States citizen whether native-born or naturalized.

SEC. 5. That all aliens arriving by water at the ports of the United States shall be manifested in convenient groups, and no one manifest shall contain more than thirty names. The names of those coming from the same locality shall so far as practicable be assembled on the manifest. To each alien or head of a family shall be given a ticket on which shall be written his name, a number or letter designating the manifest in which his name and the prescribed data concerning him are contained, and his number on the manifest. Each manifest shall be verified by the signature and the oath or affirmation of the master or commanding officer or the first or second below him in command, taken before an immigration official at the port of arrival, to the effect that he has caused the surgeon sailing with said vessel to make a physical and oral examination of each of said aliens, and that from the report of said surgeon and from his own investigation he believes that no one of said aliens belongs to any of the excluded classes named in section ten hereof, and that also, according to the best of his knowledge and belief, the information in the manifest is correct and true in every respect. The surgeon sailing with the vessel shall also sign each of the manifests and make oath or affirmation in like manner, stating his professional experience and qualifications, and that he has made a personal examination of each of the aliens named therein, and that the manifest, according to the best of his knowledge and belief, is full, correct, and true in all particulars relative to the mental and physical condition of the aliens. If no surgeon sails with a vessel bringing aliens the mental and physical examination shall be made by some competent surgeon employed at the port of departure by the owners of the vessel, and the manifests shall be verified by such surgeon before a United States consular officer.

SEC. 6. That the Commissioner-General of Immigration, as chief administrative officer of the Bureau of Immigration and Naturalization and of the Immigration Service, shall perform his duties and issue regulations for the enforcement of this Act under the direction or with the approval of the Secretary of Commerce and Labor. In addition to such other duties as may now or hereafter devolve upon him by law, or by virtue of his office, he shall have charge of the administration of all the provisions of this Act and of all laws relating to the immigration of aliens into, their residence within, and their deportation from the United States, and shall have the control, direction, and supervision of all officers, clerks, and employees appointed thereunder. He shall establish such rules and regulations, prescribe such certificates, bonds, reports, entries, and other papers, designate such districts, ports of entry, and stations, and enter into such contracts as may be necessary to carry out any provision of this Act and to control the entry by sea or across the land boundaries of aliens to, their residence within, their transit across, and their deportation from the United States, and shall issue from time to time such instructions, not inconsistent with law, as he shall deem best calculated for carrying out the provisions of this Act and for protecting the United States and aliens migrating thereto from fraud and loss. He shall have authority to enter into contract for the support and relief of such aliens within the United States as may fall into distress or need public aid, and to remove to their native country, at the expense of the appropriation for the enforcement of this Act, such as fall into distress or need public aid from causes arising subsequent to their entry and are desirous of being so removed. It shall be the duty of the Commissioner-General of Immigration to detail officials of the immigration service from time to time, as may be necessary in his judgment, to secure information as to the number of aliens detained in penal, reformatory, and charitable institutions (public and private) within the United States and to inform the officers of such institutions of the law in relation to the deportation of aliens subsequent to their admission; and he may, whenever necessary to accomplish the purposes of this Act, detail immigration officials, and also Public Health and Marine Hospital Surgeons employed under section seven hereof, for service in foreign countries. The duties of Commissioners of Immigration and of other immigration officials in charge of districts, ports, or stations, shall include the administration of the provisions of this Act in the districts or at the ports or stations to which they are appointed or assigned, which duties shall be performed subject to such regulations as the Commissioner-General of Immigration may prescribe in regard thereto.

SEC. 7. That the inspection, other than the physical and mental examination, of aliens, including those seeking admission or readmission to or the privilege of passing through or residing in the United States, and the examination of aliens arrested within the United States, under this Act, shall be conducted by immigrant inspectors, and such inspectors shall have power to administer oaths and to take and consider evidence touching the right of any alien to enter, reenter, reside in, or pass through the United States, and, where such action may be necessary, to make a written record of such evidence. Said inspectors shall also have power to require the attendance and testimony of witnesses and the production of books, papers, and documents touching the right of any alien to enter, reenter, reside in or pass through the United States, and to that end may invoke the aid of any court of the United States; and any circuit or district court within the jurisdiction of which investigations are being conducted by an immigrant inspector shall, in event of neglect or refusal to respond to a subpoena issued by such inspector or refusal to testify before such inspector, issue an order requiring such person to appear before said inspector, produce books, papers, and documents if demanded, and testify, and any failure to obey such order of the court shall be punished by the court as a contempt thereof. The claim that any such testimony or evidence may tend to criminate the person giving it or to subject such person to a penalty shall not excuse such witness from testifying; but such evidence or testimony so obtained shall not be used against such person on the trial of any criminal proceeding. The physical and mental examination of all arriving aliens shall be made by medical officers of the United States Public Health and Marine-Hospital Service, who shall have had at least two years' experience in the practice of their profession since receiving the degree of medicine and who shall certify for the information of the immigration officials and the boards of special inquiry hereinafter provided for, any and all physical and mental defects or diseases observed by said medical officers, or, should medical officers of the United States Public Health and Marine Hospital Service be not available, civil surgeons of not less than four years' professional experience may be employed in such emergency for such service, upon such terms as may be prescribed by the Surgeon-General of the Public Health and Marine Hospital Service.

SEC. 8. That upon the arrival of any vessel bringing aliens, it shall be the duty of the appropriate immigration officials to go or to send competent inspectors to the vessel and there inspect such aliens, or said immigration officials may permit a temporary removal, upon conditions to be prescribed by the Commissioner-General of Immigration to insure their maintenance at the expense of the vessel, of such aliens for examination at a designated time and place, but such temporary removal shall not be considered a landing, nor shall it relieve the transportation lines, masters, agents, owners, or consignees of the vessel upon which said aliens are brought from any of the obligations which, in case such aliens remained on board, would bind the said transportation lines, masters, agents, owners, or consignees, including the expense incident to the maintenance and necessary medical treatment of such temporarily removed aliens, pending decision of their eligibility to enter the United States: *Provided*, That where a suitable building is used for the detention and examination of aliens the immigration officials may there take charge of such aliens, upon conditions to be prescribed by the Commissioner-General of Immigration to insure their maintenance and necessary medical treatment at the expense of the vessel, and the transportation companies, masters, agents, owners, and consignees of the vessel bringing them shall be thereafter relieved of the responsibility for but not of the expense of their detention until the return of such aliens to their care, or until they have been allowed to land.

SEC. 9. That every alien who may not appear to the immigrant inspector to be clearly and beyond a doubt entitled to land shall be detained for examination by a board of special inquiry. The decision of an immigrant inspector, if favorable to the admission of an alien, shall be subject to challenge by any other immigrant inspector, and such challenge shall operate to take the alien before a board of special inquiry for examination. Such boards of special inquiry shall be created by the commissioner of immigration, or other immigration official in charge at the various ports as may be necessary for the prompt determination of the cases of all aliens there detained for examination. Each board shall consist of three members, who shall be selected from such of the immigration officials as the Commissioner-General of Immigration, with the approval of the Secretary of Commerce and Labor, shall from time to time appoint to serve on such boards: *Provided*, That at ports where there are fewer than three immigration officials, the Commissioner-General of Immigration may appoint other United States officials or employees for such service. Such boards shall have authority to determine whether an alien who has been detained for examination shall be allowed to land or shall be deported. All hearings before boards shall be separate and apart from the public, but the said boards shall keep a complete permanent record of their proceedings and of all testimony produced before them; and the decision of any two members of a board shall prevail, but either the alien or any dissenting member of a board may appeal through the commissioner of immigration or other immigration official in charge at the port of arrival and the Commissioner-General of Immigration to the Secretary of Commerce and Labor, and the taking of such appeal shall operate to stay further action until the receipt by the commissioner of immigration or other immigration official in charge of the decision of said Secretary, which shall be rendered solely upon the record of the board of special inquiry. In every case where an alien is excluded from admission into the United States, under the provisions of this Act or of any law or treaty now existing or hereafter made, the decision of the appropriate immigration officials that such an applicant for admission is an alien and is inadmissible shall be final, unless reversed on appeal to the Secretary of Commerce and Labor; but the decision of the said board of special inquiry, based upon the certificate of the examining medical officer, shall be final as to the rejection of aliens affected with tuberculosis in any form or with a loathsome or with a dangerous contagious disease, or with any mental disability which would bring such aliens within any of the classes excluded from admission to the United States under section ten of this Act.

SEC. 10. That the following classes of aliens shall be excluded from admission into the United States: All idiots, imbeciles, feeble-minded persons, epileptics, insane persons, and persons who have been insane within five years previous; persons who have had two or more attacks of insanity at any time previously; paupers; persons likely to become a public charge; professional beggars; persons afflicted with tuberculosis in any form, or with a loathsome or with a dangerous contagious disease; persons not comprehended within any of the foregoing excluded classes who are found to be and are certified by the examining surgeon as mentally or physically defective, such mental or physical defect being found by a board of special inquiry to be of a nature which may affect their ability to earn a living; persons who have been convicted of or admit having committed a felony or crime, or an offense or misdemeanor involving moral turpitude; polygamists, or persons who admit their belief in the practice of polygamy; anarchists, or persons who believe in or advocate the overthrow by force or violence of the Government of the United States, or of all government, or of all forms of law, or the assassination of public officials, or who are members of or affiliated with any organization entertaining and teaching such disbelief in or opposition to all government, or persons who advocate or teach the duty, necessity, or propriety of the unlawful assaulting or killing of any officer or officers, either of specific individuals or of officers generally, of the Government of the United States or of any other organized government, because of his or their official character; prostitutes, or women or girls coming into the United States for the purpose of prostitution or for any other immoral purpose; persons who procure or attempt to bring in prostitutes or women or girls for the purpose of prostitution or for any other immoral purpose; persons who are supported by or receive, in whole or in part, the proceeds of prostitution; persons, hereinafter called "contract laborers," who have been induced, assisted, encouraged, or solicited to migrate to this country by offers or promises of employment, whether such offers or promises are true or false, or in consequence of agreements, oral, written, or printed, express or implied, to perform manual labor in this country of any kind, skilled or unskilled, or in consequence of advertisements printed, published, or distributed in a foreign country; persons who have been within one year from the date of application for admission to the United States, deported as contract laborers; persons whose ticket or passage is paid for with the money of another, or who are assisted by others to come, unless it is affirmatively and satisfactorily shown that they do not belong to one of the foregoing excluded classes, and that said ticket or passage was not paid for by any corporation, association, society, municipality, or foreign government, either directly or indirectly; children under sixteen years of age, unaccompanied by one or both of their parents, at the discretion of the Secretary of Commerce and Labor or under such regulations as he may from time to time prescribe; Chinese persons or persons of Chinese descent, whether subjects of China or subjects or citizens of any other country foreign to the United States, unless they belong to the classes enumerated in section thirteen of this Act: *Provided*, That nothing in this Act shall exclude, if otherwise admissible, persons convicted of an offense purely political, not involving moral turpitude: *Provided further*, That no provision of this section relating to the payment for tickets or passage shall apply to aliens in immediate and continuous transit through the United States to foreign contiguous territory: *Provided further*, That skilled labor may be imported with the permission of and under regulations to be prescribed by the Commissioner-General of Immigration, such permission to be granted only if labor of like kind unemployed can not be found in this country: *Provided further*, That the provisions of this law concerning contract laborers shall not apply to persons employed strictly as personal or domestic servants: *Provided further*, That nothing in this Act shall be construed to prevent, hinder, or restrict any alien exhibitor, or holder of a concession or privilege for any fair or exposition authorized by Act of Congress from bringing into the United States, under contract, such alien mechanics, artisans, agents, or other employees, natives of his country, as may be necessary for the purpose of making preparation for installing or conducting his exhibit or of preparing for installing or conducting any business authorized or permitted under any concession or privilege which may have been or may be granted by any said fair or exposition in connection with such exposition, under such rules and regulations as the Commissioner-General of Immigration may prescribe, both as to the admission and return of such person or persons.

SEC. 11. That upon the certificate of a medical officer of the United States Public Health and Marine-Hospital Service to the effect that a rejected alien is helpless from sickness, mental or physical disability, or infancy, if such alien is accompanied by another alien whose protection or guardianship is, in the opinion of the board of special inquiry, primarily, or of the Secretary of Commerce and Labor, on appeal, required by such rejected alien, such accompanying alien may also be excluded.

SEC. 12. That whenever the President shall be satisfied that passports issued by any foreign government to its citizens to go to any country other than the United States or to any insular possession of the United States or to the Canal Zone are being used for the purpose of enabling the holders to come to the continental territory of the United States to the detriment of labor conditions therein, the President may refuse to permit such citizens of the country issuing such passports to enter the continental territory of the United States from such other country or from such insular possessions or from the Canal Zone.

SEC. 13. That for the purpose of exclusion and expulsion contemplated by sections ten and twenty-seven hereof, respectively, and of admission under section fourteen hereof, the excepted classes of Chinese aliens or aliens of Chinese descent shall consist of those who, in their personal capacity, are of the following status or occupations: government officers, ministers of the Gospel, missionaries, lawyers, physicians, chemists, engineers, teachers, students, authors, editors, journalists, merchants, bankers, capitalists, and travelers for curiosity or pleasure.

SEC. 14. That every Chinese alien or alien of Chinese descent who may be entitled by this Act to come within the United States and who shall be about to come to the United States, except such as are covered by sections fifteen and twenty-five hereof, shall obtain the permission of and be identified as so entitled by the Chinese Government, or of and by such other foreign government of which at the time such Chinese alien shall be a subject, such permission and identification in each case to be evidenced by a certificate issued by such government, which certificate shall be in the English language, and shall show such permission, with the name of the permitted person in his or her proper signature, and shall state the individual and family name or names of such person in full, title or official rank, if any, the age, height, and all physical peculiarities, former and present occupation or profession, when and where and how long pursued, and place of residence of the person to whom the certificate is issued, and that such person is entitled by this Act to come within the United States, and to which certificate there shall be attached a photograph of such permitted person. If the alien so applying for a certificate is a merchant, said certificate shall, in addition to the foregoing requirements, state the nature, character, and estimated value of the business carried on by him prior to and at the time of his application as aforesaid; and the term "merchant" wherever used in this Act shall mean a person engaged in buying and selling merchandise at a fixed place of business and who performs no manual labor other than such as is necessarily incident to the conduct of such business. If the person so applying is a student, such certificate shall, in addition to the foregoing requirements, state the nature of the studies theretofore pursued, the nature of the studies to be pursued in the United States, and where they will be pursued, and that provision has been made for the care and maintenance of the student, as such, in this country. If the certificate be sought for the purpose of travel for curiosity, it shall also state whether the applicant intends to pass through or travel within the United States, together with his financial standing in the country by an official of which such certificate is issued. The certificate provided for in this Act, and the identity of the person named therein shall, before such person goes on board any vessel to proceed to the United States, be viséed by the indorsement of the diplomatic representative of the United States in the foreign country from which such certificate issues, or of the consular representative of the United States at the port or place from which the person named in the certificate is about to depart, or of an official of the Immigration Service detailed for that purpose; and such diplomatic representative or consular representative or immigration official whose indorsement is so required is hereby empowered, and it shall be his duty before indorsing such certificate as aforesaid, to examine into the truth of the statement set forth in said certificate, and if he shall find upon examination that said or any of the statements therein contained are untrue it shall be his duty to refuse to indorse the same. The said certificate, viséed as aforesaid, shall be prima facie evidence of the facts set forth therein, and shall be produced to the immigration official in charge of the port of the United States at which the alien named therein shall arrive, and shall be the sole evidence permissible on the part of the person so producing the same to establish a right of entry into the United States; but said certificate may be controverted and the facts therein stated disproved by the United States authorities. The said certificate shall be taken up by the immigration official by whom the person presenting same is admitted to the United States and there shall be issued in lieu thereof a certificate of identity of a character and form to be prescribed by the Commissioner-General of Immigration, containing a complete personal description and a photograph of the admitted person, which certificate of identity shall be retained by him as evidence of his lawful entry to the country and of his right to reside therein so long as he maintains a status or occupation placing him within the excepted classes enumerated in section thirteen hereof.

SEC. 15. That the legal wives and minor natural-born children of members of the excepted classes of Chinese aliens enumerated in section thirteen hereof shall be regarded as partaking of the status of the husband and father, respectively, so long as coverture or minority continues and shall be admitted to the United States and supplied with a certificate of identity of the character described in section fourteen hereof upon satisfactorily establishing that they sustain the claimed relationship to a person of the said excepted classes residing within the United States or seeking admission thereto in company with them and that coverture or minority exists at the time of application: *Provided,* That no such wife or child shall be admitted to the United States as of that status unless accompanied by, or coming to join, the husband or father, and, if the husband or father is already in the United States, unless it is satisfactorily shown that such husband or father is lawfully entitled to be and remain in the United States, and shown by the testimony of at least two witnesses other than Chinese that such husband or father is and has been for at least two years a *bona fide* member of an exempt class: *Provided further,* That Chinese aliens or aliens of Chinese descent admitted to the United States as the minor natural-born children of members of the said excepted classes shall upon reaching their majority establish and maintain themselves in a status or occupation which will constitute them members themselves of the said excepted classes, failing which they shall be subject to deportation in accordance with the provisions of section twenty-seven hereof.

SEC. 16. That the Commissioner-General of Immigration shall prescribe such rules and regulations with respect to the recording and inspection of aliens of nationalities and races other than Chinese employed on vessels entering ports of the United States, and the assessment of head tax on account of such as seek to land in the United States for purposes other than those of their employment, or whose departure in the pursuit of such employment is not shown, as may be necessary, on the one hand, to prevent violation or evasion of the terms of this Act by aliens who, arriving as employees of vessels, or in the guise of such employees, determine to enter and remain in the United States, and, on the other hand, to avoid in the enforcement of this Act any undue interference with navigation and commerce. Full information shall be furnished immigration officials by the master, owner, officer, or agent of any vessel employing aliens with respect to every alien employed thereon who shall desert the vessel in a port of the United States, and also all such alien employees as may be pronounced under said regulations inadmissible to the United States shall be held on board and carried to the foreign port of shipment, subject to the penalties prescribed in sections thirty-four and thirty-five hereof.

SEC. 17. That no Chinese alien or alien of Chinese descent employed on board vessels entering the ports of the United States shall, unless entitled to enter the United States under the various provisions of this Act, be permitted to land in the United States, unless satisfactory bond is furnished in form and amount to be prescribed by the Commissioner-General of Immigration, conditioned for the departure of such alien from the United States with the vessel on which employed, in accordance with proper regulations requiring names, description, and photograph, to be issued by the Commissioner-General of Immigration, to insure the identity of such departing Chinese alien.

SEC. 18. That no alien certified, as provided in section seven of this Act, to be suffering from tuberculosis in any form or from a loathsome or a dangerous contagious disease other than one of a quarantinable nature shall be permitted to land for medical treatment in any hospital in the United States unless it is shown that the disease was contracted, or developed into a discoverable stage, during the voyage from which seeking to land and in the opinion of the Secretary of Commerce and Labor such treatment is imperatively required as a measure of humanity, in which event authority therefor may be granted, the expense, however, not to be borne by the Government.

SEC. 19. That any alien excluded because likely to become a public charge or because of physical disability other than tuberculosis in any form or a loathsome or a dangerous contagious disease may, if otherwise admissible and if in the opinion of the Secretary of Commerce and Labor peculiar individual hardship or suffering would result from deportation, nevertheless be admitted by said Secretary upon the giving of a suitable bond approved by said Secretary in such amount and containing such conditions as he may prescribe, to the United States, and to all States, Territories, counties, municipalities, and districts thereof, holding the United States and all States, Territories, counties, municipalities, and districts thereof harmless against such alien becoming a public charge. The admission of such alien shall be a consideration for the giving of such bond or undertaking. Suit may be brought thereon in the name of and by the appropriate law officers either of the United States or of any State, Territory, district, county, or municipality in which such alien becomes a public charge.

SEC. 20. That all aliens brought to this country in violation of law shall, if practicable, be immediately sent back to the country whence they respectively came on the vessels bringing them, or, if that is not practicable, on other vessels of the same line or otherwise at the expense of the owners of the vessels bringing them: *Provided*, That the Commissioner-General of Immigration may suspend, upon conditions to be prescribed by him, the deportation of any alien found to have come in violation of any provision of this Act, if, in his judgment, the testimony of such alien is necessary on behalf of the United States Government in the prosecution of offenders against any provision of this Act, and the cost of maintenance of any person so detained resulting from such suspension of deportation and a witness fee in the sum of one dollar per day for each day such person is so detained may be paid from the appropriation for the enforcement of this Act, or such alien may be released under bond in the penalty of not less than five hundred dollars with security approved by the Secretary of Commerce and Labor, conditioned that such alien shall be produced when required as a witness in such a prosecution and for deportation: *Provided further*, That upon the certificate of a medical officer of the United States Public Health and Marine-Hospital Service to the effect that the health or safety of any rejected alien would be unduly imperiled by immediate deportation, said alien may be held and treated at the expense of the owner of the vessel by which brought until such time as he may, in the opinion of such medical officer, be safely deported.

SEC. 21. That whenever an alien shall have taken up his permanent residence in this country, and shall have filed his declaration of intention to become a citizen, and thereafter shall send for his wife or minor children to join him, if said wife or any of said children shall be found to be affected with any contagious disorder, and if it is proved that said disorder was contracted on board the ship in which they came, and it is so certified by the examining surgeon at the port of arrival, such wife or children shall be held, under such regulations as the Commissioner-General of Immigration shall prescribe, until it shall be determined whether the disorder will be easily curable or whether they can be permitted to land without danger to other persons; and they shall not be either admitted or deported until such facts have been ascertained; and if it shall be determined that the disorder is easily curable and the husband or father is able and willing to bear the expense of treatment they may be accorded treatment in hospital until cured and then be admitted, or if it shall be determined that they can be permitted to land without danger to other persons they may, if otherwise admissible, thereupon be admitted.

SEC. 22. That it shall be the duty of each and every Chinese alien and alien of Chinese descent within the limits of the United States at the time of the passage hereof to apply within one year after the taking effect hereof to the immigration official of the United States whose office is most conveniently located to the place of residence of such alien for a certificate of residence; and any such alien found within the United States after the expiration of said period without such certificate shall be subject to deportation, as provided in section twenty-seven hereof, unless it shall be made to appear affirmatively and satisfactorily that his failure to procure such certificate within the time limited was due to unavoidable causes. Persons of Chinese descent who claim to be American citizens by reason of birth in this country or under the act of Congress annexing the Hawaiian Islands shall be accorded the privilege of registering under the terms of this Act upon proving their claim to the satisfaction of the Commissioner-General of Immigration or of an immigration official designated by him to hear the evidence in such cases; and whenever the Secretary of Commerce and Labor, or the Commissioner-General of Immigration, or immigration official designated by them shall determine under proceedings connected with the application of a person of Chinese descent for admission to the United States or under proceedings connected with the issuance of warrants in accordance with section twenty-seven hereof that such person of Chinese descent is an American citizen, or whenever it shall be made to appear to the satisfaction of the Commissioner-General of Immigration that a child of Chinese descent has been born within the United States, there shall be issued to such person of Chinese descent of proven American nativity a certificate of residence of the character herein described.

SEC. 23. That the registration prescribed in the preceding section shall be enforced in the insular territory under the jurisdiction of the United States as well as in the continental territory of the United States. Chinese aliens and aliens of Chinese descent, not members of the excepted classes enumerated in section thirteen hereof, shall not be permitted to enter the continental territory from the insular territory of the United States nor to enter one group of islands from another group, and members of the said excepted classes shall be permitted to enter the continental territory from the insular possessions only upon compliance with the terms of section fourteen hereof by obtaining from officers to be designated for that purpose by the Governors of the respective insular possessions a certificate of the character prescribed in said section: *Provided*, That said laws shall not apply to the transit of Chinese aliens from one island to another island of the same group, and any islands within the jurisdiction of any State or the Territory of Alaska shall be considered a part of the mainland under this section.

SEC. 24. That the certificate of residence mentioned in section twenty-two hereof shall be prepared on secret-process paper in a form to be prescribed by the Commissioner-General of Immigration; shall contain a complete personal description and a photograph of the person to whom issued; and shall be issued by immigration officials under regulations prescribed by the Commissioner-General of Immigration, a complete duplicate in each instance to be retained for the files of the Bureau of Immigration and Naturalization. The cost of the preparation and issuance of said certificate shall be paid from the appropriation for the enforcement of this Act. Should such certificate be lost or destroyed, a certificate in lieu thereof shall be furnished by the Commissioner-General of Immigration upon proof of the identity of the applicant therefor, and of the loss or destruction of the original, and in the cases of children born in the United States certificates may be issued, from time to time, upon the surrender of any previously granted and the establishment of the identity of the applicant, as the appearance of such children changes with growth and development. No Chinese alien or alien of Chinese descent heretofore convicted in any court of the United States or of the States or Territories thereof of a felony shall be permitted to register under the provisions of this Act, unless such person was registered under the provisions of the Act of May fifth, eighteen hundred and ninety-two, or the Act of November third, eighteen hundred and ninety-three; but such alien shall immediately, or at the expiration of his sentence, be removed from the United States in accordance with section twenty-seven hereof. Certificates of residence granted under the provisions of the Acts of May fifth, eighteen hundred and ninety-two, and of November third, eighteen hundred and ninety-three, shall be surrendered by applicants for registration hereunder to the immigration officials to whom application is submitted.

SEC. 25. That any Chinese alien or alien of Chinese descent, whether a member of the excepted classes enumerated in section thirteen hereof or not, who obtains a certificate of residence in accordance with the provisions of this Act, and any Chinese alien admitted to the United States as a member of the excepted classes in accordance with section fourteen hereof, or who is admitted in accordance with and continues to observe the provisions of section fifteen hereof, shall be permitted to leave the United States at any time and through any seaport, or through any land border port designated as a port of entry for aliens under section twenty-six hereof, and, if admissible under the general provisions of this Act, to return to and reenter the United States at any future time upon the following conditions: He shall at the time of departure deposit with the immigration official in charge at the port through which he departs his certificate of residence or certificate of identity, obtaining in lieu thereof a return certificate of a character and form to be prescribed by the Commissioner-General, and shall reenter through such port of departure, and satisfactorily identify himself at the time of return as the person to whom the certificate of residence or certificate of identity so deposited relates. Upon the readmission of such an applicant the deposited certificate shall be returned to him and the return certificate issued in lieu thereof shall be retained by the immigration official in charge at the port.

SEC. 26. That any alien who shall enter the United States in violation of this Act; any alien who shall become a public charge from causes existing prior to landing, within three years after such landing; any alien who, within said period, shall be convicted of or admit having committed a felony or crime or an offense or misdemeanor involving moral turpitude; any alien woman or girl who shall be found an inmate of a house of prostitution or practicing prostitution, at any time within three years after entry; any alien who, within said period, shall import or attempt to import a woman or girl for the purpose of prostitution or for any other immoral purpose, or who shall within said period be found to be supported in whole or in part by the proceeds of prostitution; any alien woman or girl, or any alien procurer or importer of women or girls for the purpose of prostitution or other immoral purpose, or any alien found within said period to be supported in whole or in part by the proceeds of prostitution, who, after being excluded and deported or arrested and deported, shall return to and enter the United States; any alien who shall enter the United States by water at any time or place other than as designated by immigration officials, or by land at any place other than one designated as a port of entry for aliens by the Commissioner-General of Immigration or at any time not designated by immigration officials, shall upon the warrant of the Secretary of Commerce and Labor be taken into custody and deported to the country whence he came at any time within three years after the date of entry into the United States, and the burden shall rest upon such aliens to establish the date of their entry. In every case where any person is ordered deported from the United States under the provisions of this Act or of any law or treaty now existing or hereafter made, the decision of the Secretary of Commerce and Labor that such person is an alien and is deportable shall be final: *Provided,* That any term of imprisonment imposed by reason of the conviction of an alien within three years after landing shall not be regarded as a part of the period during which deportation may be effected hereunder, but during such term the limitation shall cease to run: *Provided further,* That the limit of three years after entry fixed hereby as the period within which deportation of aliens may be effected shall not apply to aliens shown to the satisfaction of the Secretary of Commerce and Labor to have been at the time of entry anarchists, or persons who have been convicted of or admitted having committed a felony or crime, or an offense or misdemeanor involving moral turpitude, not of a purely political nature, or prostitutes, or women or girls coming into the United States for the purpose of prostitution or for any other immoral purpose, or persons procuring or attempting to bring in prostitutes or women or girls for the purpose of prostitution or for any other immoral purpose, or persons supported by or receiving in whole or in part the proceeds of prostitution; but aliens of said classes shall be deported whenever found within the United States.

SEC. 27. That any Chinese alien or alien of Chinese descent now residing in the United States who shall fail, neglect, or refuse to procure for himself, in the manner and within the time prescribed by section twenty-two hereof, a certificate of residence, or any Chinese alien or alien of Chinese descent who, not being a member of the excepted classes described in section thirteen hereof, shall enter the United States, or any Chinese alien or alien of Chinese descent who shall secure admission to the United States by claiming membership in such excepted classes and after entry engage in any occupation not contemplated in the description of such classes, or any Chinese alien or alien of Chinese descent who shall in any other manner enter the United States in violation of this Act, shall be taken into custody on warrant of the Secretary of Commerce and Labor whenever and wherever found in the United States, and be deported to the country whence he came.

SEC. 28. That the deportation provided for in the two next preceding sections, including the cost of removal to the port of deportation, shall, if effected at any time within three years after the entry of the alien, be at the expense of the contractor, procurer, or other person by whom the alien was unlawfully induced to enter the United States, or, if that can not be done, then the cost of removal to the port of deportation shall be at the expense of the appropriation for the enforcement of this Act and the deportation from such port shall be at the expense of the owners of the vessel or transportation line by which the alien came, or, if that is not practicable, at the expense of the appropriation for the enforcement of this Act. If such deportation is effected later than three years after the entry of the alien, or if the deportation is solely upon the ground that the alien is a Chinese who has failed to register, the expense thereof shall be payable from the appropriation for the enforcement of this Act. When in the opinion of the Secretary of Commerce and Labor the mental or physical condition of any alien rejected or arrested and deported is such as to require personal care and attendance, he may employ a suitable person for that purpose, who shall accompany such alien to final destination, and the expenses incident to such service shall be defrayed in like manner as expenses incident to the deportation, or he may require special reports from the transportation company regarding the deportation and disposition of the alien.

SEC. 29. That pending the final disposal of the case of any alien arrested under the provisions of this Act, or of any suit or proceeding in which such alien's testimony may be required, he may be detained, and if used as a witness be paid a witness fee of one dollar per day during such detention, at the expense of the appropriation for the enforcement of this Act, or may be released under a bond in the penalty of not less than five hundred dollars with security approved by the Secretary of Commerce and Labor, conditioned that such alien shall be produced when required for a hearing or hearings in regard to the charge upon which he has been taken into custody, or as a witness in a pending suit or proceeding, and for deportation if he shall be found to be unlawfully within the United States.

SEC. 30. That the deportation of aliens arrested within the United States after entry and found to be illegally therein shall be to the foreign port at which such aliens embarked for the United States; or, if such embarkation was for foreign contiguous territory, to the foreign port at which said aliens embarked for such territory; or, if such aliens entered foreign contiguous territory from the United States and later entered the United States, or if such aliens are not subjects or citizens of the country from which they entered the United States and such country refuses to permit their reentry, or imposes

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any condition upon permitting reentry, then to the country of which such aliens are subjects or citizens.

SEC. 31. That in case of the failure of the master or commanding officer of any vessel bringing aliens into or carrying aliens out of the United States to deliver to the immigration officials the accurate and full manifests or statements or information regarding all aliens on board or taken on board such vessels required by sections three, four, and five of this Act, he shall pay to the collector of customs at the port of arrival or departure the sum of ten dollars for each alien concerning whom such accurate and full manifest or statement or information is not furnished, or concerning whom the manifest or statement or information is not prepared and sworn to as in said sections prescribed. No vessel shall be granted clearance papers pending the determination of the question of the liability to the payment of such fine, and, in the event that such fine is imposed, while it remains unpaid, nor shall such fine be remitted or refunded: *Provided*, That clearance may be granted prior to the determination of such question upon the deposit of a sum sufficient to cover such fine.

SEC. 32. That any person, including the master, agent, owner, or consignee of any vessel, who shall bring into or land in the United States, by vessel or otherwise, or who shall attempt, by himself or through another, to bring into or land in the United States, by vessel or otherwise, or who shall conceal or harbor, or attempt to conceal or harbor, or assist or abet another to conceal or harbor in any building, vessel, railway car, or other place, conveyance, or vehicle, any alien not duly admitted by an immigrant inspector or not lawfully entitled to enter or to reside within the United States under the terms of this Act shall be deemed guilty of a misdemeanor, and shall, on conviction, be punished by a fine of not less than five hundred nor more than three thousand dollars, or by imprisonment for a term of not less than one year nor more than three years, or by both such fine and imprisonment for each and every alien so landed or brought in or attempted to be landed or brought in, or so concealed or harbored, or with respect to whom there has been such an attempt to conceal or harbor, or assisting or abetting another to conceal or harbor. Every vessel, boat, railway car, or other vehicle or conveyance of whatever description, the master, owner, lessee, or bailee of which shall use the same in violating any of the provisions of this Act shall be deemed forfeited to the United States, and shall be liable to seizure and condemnation in any district of the United States into which such vessel, boat, railway car, or other vehicle may enter or in which it may be found.

SEC. 33. That it shall be unlawful for any person, including any transportation company other than railway lines entering the United States from foreign contiguous territory, or the owner, master, agent, or consignee of any vessel, to bring to any port of the United States any alien, including alien employees of vessels, belonging to any of the following classes: Idiots, imbeciles, epileptics, or persons afflicted with tuberculosis in any form, or with a loathsome or with a dangerous contagious disease, and if it shall appear to the satisfaction of the Secretary of Commerce and Labor that any alien or alien employee so brought to the United States was afflicted with any of the said diseases or disabilities at the time of foreign embarkation, and that the existence of such disease or disability might have been detected by means of a competent medical examination at such time, such person, or transportation company, or the master, agent, owner, or consignee of any such vessel, shall pay to the collector of customs of the customs district in which the port of arrival is located the sum of two hundred dollars for each and every violation of the provisions of this section; and no vessel shall be granted clearance papers pending the determination of the question of the liability to the payment of such fine, and in the event that such fine is imposed, while it remains unpaid, nor shall such fine be remitted or refunded: *Provided,* That clearance may be granted prior to the determination of such question upon the deposit of a sum sufficient to cover such fine.

Sec. 34. That it shall be the mandatory and unqualified duty of the owners, masters, officers, and agents of vessels or transportation lines, other than those railway lines which may enter into a contract as provided in section six of this Act, bringing an alien to any seaport or land border port of the United States to absolutely insure that such alien shall not land in the United States at any time or place not designated by the immigration officials, and the failure of any such owner, master, officer, or agent to comply with the foregoing requirements shall be deemed a misdemeanor and be punished by a fine in the case of each alien so landed of not less than three hundred nor more than two thousand dollars or by imprisonment for a term of not less than six months nor more than two years, or by both such fine and imprisonment; or, if it is impracticable or inconvenient to prosecute the owner, master, officers, or agent of any such vessel, the maximum pecuniary penalty mentioned shall be a lien upon the vessel whose owner, master, officers, or agent violates the provisions of this section, and such vessel shall be libelled therefor in the appropriate United States court.

Sec. 35. That it shall be the mandatory and unqualified duty of the owners, masters, officers, and agents of vessels on which aliens are employed entering any port of the United States to absolutely insure that no such alien employee, concerning whom notice of inadmissibility has been served on such owner, master, officer, or agent by an immigration official in accordance with regulations for the enforcement of this Act with respect to alien seamen, as prescribed by section sixteen hereof, shall land in the United States, and the failure of any such owner, master, officer, or agent to insure against such landing shall be deemed a misdemeanor, for which the owner, master, officer, or agent shall be punished, or on account of which the vessel shall be libelled, as prescribed in section thirty-four hereof.

Sec. 36. That it shall be the mandatory and unqualified duty of the owners, masters, officers, and agents of vessels on which any Chinese alien is employed entering any port of the United States to absolutely insure that no such Chinese alien employee shall land in the United States in any other manner than that prescribed in section seventeen hereof, and the failure of any such owner, master, officer, or agent to insure against such landing shall be deemed a misdemeanor, for which the owner, master, officer, or agent shall be punished, or on account of which the vessel shall be libelled, as prescribed in section thirty-four hereof.

SEC. 37. That any person who aids or assists any anarchist, as described in section ten hereof, to enter the United States, or who connives or conspires with any person or persons to allow, procure, or permit any such anarchist to unlawfully enter therein, shall be deemed guilty of a felony, and on conviction thereof be imprisoned not less than one nor more than five years and pay a fine of not less than one nor more than five thousand dollars.

SEC. 38. That the importation into the United States of any alien woman or girl for the purpose of prostitution, or for any other immoral purpose, is hereby forbidden; and whoever shall, directly or indirectly, import, or attempt to import, into the United States, any alien woman or girl for the purpose of prostitution, or for any other immoral purpose, or whoever shall hold or attempt to hold any alien woman or girl for any such purpose in pursuance of such illegal importation, or whoever shall keep, maintain, control, support, employ, or harbor in any house or other place any alien woman or girl in pursuance of such illegal importation for the purpose of prostitution or for any other immoral purpose, shall, in every such case, be deemed guilty of a felony, and on conviction thereof be imprisoned not less than one nor more than five years and pay a fine of not less than one nor more than five thousand dollars. If any alien woman or girl, or any alien procurer or importer of women or girls for purposes of prostitution or other immoral purposes, excluded and deported or arrested and deported under any of the provisions of this Act shall later return to and enter the United States, such alien shall be deemed guilty of a misdemeanor, and on conviction shall be punished by imprisonment for a term of not less than six months nor more than two years. Prosecutions brought hereunder may be instituted at any place in the United States at which the violation may occur, or at which the person charged with such violation may be found; and in such prosecutions the testimony of a husband or wife shall be admissible and competent evidence against a wife or husband.

SEC. 39. That it shall be a misdemeanor for any person, including any company, partnership, or corporation, in any manner whatsoever, to prepay the transportation or in any way to induce, assist, encourage, or solicit, or to attempt to induce, assist, encourage, or solicit the importation or migration of any alien into the United States, in pursuance of any offer or promise of employment, whether true or false, or in pursuance of any agreement, oral, written, or printed, express or implied, to perform manual labor in this country of any kind, skilled or unskilled, unless such alien is exempted under the terms of the last proviso of section ten of this Act, or has been imported with the permission of the Commissioner-General of Immigration, in accordance with the third proviso thereof; and for every violation of any of the provisions of this section the person, partnership, company, or corporation violating the same, by so inducing, assisting, encouraging, or soliciting, or attempting to so induce, assist, encourage, or solicit the migration or importation of any alien into the United States shall forfeit and pay for every such offense the sum of one thousand dollars, which may be sued for and recovered by the United States, or by any person who shall first bring his action therefor in his own name and for his own benefit, including any such contract laborer thus promised labor or service of any kind as aforesaid, as debts of like amount are now recovered in the courts of the United States; or for every violation of the provisions hereof the person violating same may be prosecuted in a criminal action for a misdemeanor and on conviction shall be punished by a fine of one thousand dollars, or by imprisonment for a term of not less than six months nor more than two years, and under either the civil or the criminal procedure mentioned separate suits or prosecutions may be brought for each alien thus promised labor or service of any kind as aforesaid. And it shall be the duty of the United States attorney of the proper district to prosecute every such suit or prosecution when brought by the United States.

SEC. 40. That it shall be unlawful and be deemed a violation of section thirty-nine of this Act to induce, assist, encourage, or solicit, or to attempt to induce, assist, encourage, or solicit, the importation or migration of any alien by promise of employment through advertisements printed, published, or distributed in any foreign country, whether such promise is true or false, and either the civil or the criminal penalty imposed by said section shall be applicable to such a case: *Provided*, That this section shall not apply to States or Territories, the District of Columbia, or places subject to the jurisdiction of the United States advertising the inducements they offer for immigration thereto, respectively; but such States and Territories, the District of Columbia, and places subject to the jurisdiction of the United States, shall be permitted to advertise such inducements and to make their advertisements effective by written or oral communication with prospective alien settlers and by paying out of the ordinary State or Territorial funds regularly appropriated for that purpose the transportation of such alien settlers, provided always that the exception hereby made is not used as a means of evading the provisions of this and the preceding section.

SEC. 41. That no transportation company or owner of vessels, or others engaged in transporting aliens into the United States, shall, directly or indirectly, either by writing, printing, or oral representation, solicit, invite, or encourage, or attempt to solicit, invite, or encourage, the immigration of aliens into the United States, and the Commissioner-General of Immigration shall promulgate such regulations as will enable him effectively to determine whether the provisions of this section are violated; but this shall not be held to prevent transportation companies from issuing letters, circulars, or advertisements, stating the sailings of their vessels and terms and facilities of transportation therein; and for a violation of this provision, any such transportation company, and any such owner of vessels, and all others engaged in transporting aliens into the United States, and the agents by them employed, shall be severally subjected to the civil penalty imposed by section thirty-nine of this Act. For the purpose of proceeding under this section service upon any officer or accredited agent of a transportation company or owner of vessels or others engaged in transporting aliens into the United States shall be deemed sufficient service.

SEC. 42. That any person to whom an oath has been administered by an immigration official under the provisions of this Act who shall knowingly or wilfully give false evidence or swear to any false statement in relation to or in any way affecting the right of any alien to admission or readmission to or to residence within or to pass in transit through the United States shall be deemed guilty of perjury and be punished as provided by section fifty-three hundred and ninety-two, United States Revised Statutes.

SEC. 43. That the expense of the maintenance and care of all aliens brought to ports of the United States, prior to admission by the immigration officials, as well as the expense of the return of such as are excluded and of the deportation of such as are arrested and ordered deported within three years after entry, shall be borne by the owners of the vessels on which they respectively came; and if any master, person in charge, agent, owner, or consignee of any such vessel shall refuse to pay any of the said expenses, or shall refuse to receive on board any such vessel, or on board any vessel owned or operated by the same interests, such aliens as are rejected, or arrested, and ordered deported under the provisions of this Act, or shall fail to safely guard and detain them thereon, or shall refuse or fail to return them to the foreign port from which they came, or shall make any charge for their return, or shall take any security from them for the payment of such charge, such master, person in charge, agent, owner, or consignee shall be deemed guilty of a misdemeanor and shall, on conviction, be punished by a fine of not less than three hundred nor more than two thousand dollars or by imprisonment for a term of not less than six months nor more than two years, or by both such fine and imprisonment, for each and every such offense; and no vessel shall have clearance from any port of the United States while any such fine is unpaid, or if there is a second such refusal in the case of any one alien until such refusal is withdrawn. For the purpose of proceeding under this section service upon any officer or accredited agent of a transportation company or owner of vessels or others engaged in transporting aliens into the United States shall be deemed sufficient service.

SEC. 44. That any person who shall substitute any name for the name written in any certificate herein required, or any photograph for the photograph attached to any such certificate, or shall in any manner alter any such certificate, or forge any such certificate, or falsely personate any person named in any such certificate, or issue or utter any forged or fraudulent certificate, and any person other than the one to whom there has been duly issued any certificate prescribed by this Act who shall present any such certificate, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined in a sum not exceeding one thousand dollars and be imprisoned for a term of not less than one nor more than five years.

SEC. 45. That the circuit and district courts of the United States are hereby invested with full and concurrent jurisdiction of all causes, civil and criminal, arising under any of the provisions of this Act. No suit or proceeding for a violation of the provisions of this Act shall be settled, compromised, or discontinued without the consent of the court in which it is pending, entered of record, with the reasons therefor.

SEC. 46. That immigrant inspectors and other immigration officials, clerks, and employees shall be appointed and their compensation fixed and raised or decreased from time to time by the Secretary of Commerce and Labor, upon the recommendation of the Commissioner-General of Immigration and in accordance with the provisions of the civil service Act of January sixteenth, eighteen hundred and eightythree: *Provided,* That said Secretary in the enforcement of that portion of this Act which excludes contract laborers, may employ, without reference to the provisions of the said civil service Act, or to the various Acts relative to the compilation of the official register, such persons as he may deem advisable and from time to time fix, raise, or decrease their compensation. He may draw annually from the appropriation for the enforcement of this Act fifty thousand dollars, or as much thereof as may be necessary, to be expended for the salaries and expenses of persons so employed and for expenses incident to such employment; and the accounting officers of the Treasury shall pass to the credit of the proper disbursing officer expenditures from said sum without itemized account whenever the Secretary of Commerce and Labor certifies that an itemized account would not be for the best interests of the Government: *Provided further,* That nothing herein contained shall be construed to alter the mode of appointing commissioners of immigration at the several ports of the United States as provided by the sundry civil appropriation Act approved August eighteenth, eighteen hundred and ninety-four, or the official status of such commissioners heretofore appointed.

SEC. 47. That all exclusive privileges of exchanging money, transporting passengers or baggage, or keeping eating houses, and all other like privileges in connection with any United States immigrant station, shall be disposed of after public competition, subject to such conditions and limitations as the Commissioner-General of Immigration may prescribe; but nothing herein contained shall prevent the Commissioner-General in his discretion from permitting these things to be done by Government agencies. All receipts accruing from the disposal of such exclusive privileges shall be paid into the Treasury of the United States. No intoxicating liquors shall be sold in any such immigrant station.

SEC. 48. That for the preservation of the peace and in order that arrests may be made for crimes under the laws of the States and Territories of the United States where the various immigrant stations are located, the officials in charge of such stations, as occasion may require, shall admit therein the proper State and municipal officers charged with the enforcement of such laws, and for the purpose of this section the jurisdiction of such officers and of the local courts shall extend over such stations.

SEC. 49. That the President of the United States is authorized, in the name of the Government of the United States, to call, in his discretion, an international conference, to assemble at such point as may be agreed upon, or to send special commissioners to any foreign country, for the purpose of regulating by international agreement, subject to the advice and consent of the Senate of the United States, the immigration of aliens to the United States; of providing for the mental, moral, and physical examination of such aliens by American consuls or other officers of the United States Government at the ports of embarkation, or elsewhere; of securing the assistance of foreign governments in their own territories to prevent the evasion of the laws of the United States governing immigration to the United States; of entering into such international agreements as may be proper to prevent the immigration of aliens who, under the laws of the United States, are or may be excluded from entering the United States, and of regulating any matters pertaining to such immigration.

SEC. 50. That this Act shall take effect and be enforced from and after July first, nineteen hundred and ten. The Act of February twentieth, nineteen hundred and seven, to regulate the immigration of aliens into the United States, except sections thirty-four and forty thereof, the Act of March third, nineteen hundred and three, to regulate the immigration of aliens into the United States, except section thirty-four thereof, and all other Acts and parts of Acts inconsistent with this Act are hereby repealed on and after the taking effect of this Act: *Provided,* That nothing contained in this Act shall be construed to affect any prosecution, suit, action, or proceeding brought, or any act, thing, or matter, civil or criminal, done or existing at the time of the taking effect of this Act, except that this Act shall be construed to require the deportation of aliens of the classes specified in the second proviso of section twenty-six hereof irrespective of the time of the entry of such aliens to the United States; but as to all such prosecutions, suits, actions, proceedings, acts, things, or matters, with the one exception mentioned, the laws or parts of laws repealed or amended by this Act are hereby continued in force and effect.

MEMORANDUM EXPLAINING DRAFT OF PROPOSED NEW IMMIGRATION ACT.

The proposed bill, containing 50 sections, is arranged in what is conceived to be the most logical sequence to which such a measure will accommodate itself. Its various subjects are, to that end, arranged in the following order: (1) Definitions of terms; (2) Collection of head tax; (3) Collection of statistics; (4) Immigration officials—their functions and their control; (5) Admission and exclusion of aliens; (6) Residence of aliens in the United States; (7) Arrest and deportation of aliens; (8) Penalties for violation of various provisions; (9) Miscellaneous items; and (10) Repealing and saving provisions.

In explaining the origin of the text and the reasons for the various amendments, the sections of the draft are taken up in numerical order. Throughout the draft the language has been simplified and made more succinct than that of existing law.

SECTION 1.

The definition given for the term "alien" is what it is confidently believed was intended when Congress abandoned in the acts of 1903 and 1907 the term "alien immigrant." It is absolutely necessary that some clear definition shall be adopted, as conflicting decisions in the courts have placed the matter in serious doubt (143 Fed., 922, and 148 Fed., 1022; 141 Fed., 221, and 152 Fed., 346; 160 Fed., 842; also 128 Fed., 652; 152 Fed., 1; 164 Fed., 152; 165 Fed., 830; 166 Fed., 536 and 1007, and 158 U. S., 538).

The remaining provisions of this section are taken out of sections 41 and 33 of the immigration act of 1907, and section 6 of the act of February 6, 1905, providing for the government of the Philippines, and require no comment.

SECTION 2.

This is section 1 of the act of 1907, so changed as to make the head tax payable on account, not merely of all aliens entering the United States, but of all brought to United States ports—a return to the language of the act of 1903. The present wording results, usually, in reducing by four dollars the penalty against a transportation company for bringing an inadmissible alien, which penalty consists in the return of the alien at the company's cost.

As there is a great deal of travel between the Bermuda Islands and the United States, that colony has been classed with Canada, Newfoundland, etc., in the exemption from the head tax. The language of the act of 1903 has also been reinstated, in naming the countries exempted from head tax, as experience has shown it is both more convenient and more satisfactory to exempt *citizens* of such countries than *conditional residents* thereof.

While it is desirable that the head tax shall not be collected on aliens in transit, it is quite as desirable that there shall be no evasion of the law in this respect, and that any refunds made shall go to the alien (by whom actually paid) and not into the coffers of the transportation companies, as now often happens. It is also quite as good policy not to assess the head tax on tourists and temporary visitors. Provisions are accordingly inserted to accomplish these several objects. On the same theory alien seamen, arriving and departing in the pursuit of their calling, are exempted. The third proviso to this section, requiring that head tax collected in the Philippines shall go into the treasury of said islands, is taken from section 6 of the act of February 6, 1905.

SECTION 3.

This is so much of section 12 of the act of 1907 as relates to the collection of data regarding incoming aliens, with certain changes in the items of statistical data required, shown by experience in keeping the figures to be essential. One very important change is made, viz, that requiring that the data furnished be *accurate* as well as full. Obviously inaccurate information for economic and scientific purposes is worse than none at all. Yet a district court has held (162 Fed., 803) that all the present law requires is full information, no matter how inaccurate, which decision has been affirmed by the circuit court of appeals, fifth circuit. To meet this it is necessary to change this section and also section 15 of the act of 1907, which becomes section 31, hereafter explained.

SECTION 4.

The provisions with regard to furnishing data covering passengers leaving the United States are separated from those regarding passengers entering, and extended so as to cover citizens (native born and naturalized) departing with the intent to settle abroad, and to empower immigration officials to obtain information regarding aliens and permanently departing citizens leaving the country over the land boundaries similar to that furnished by transportation companies concerning those leaving by vessels. A statement regarding the "outward passenger movement," now secured by indirect, nonstatutory means, is also required of the steamship companies. These modifications of the statistical requirements are essential to the compilation of accurate figures on this very important subject. Instead of requiring manifests of outward-bound passengers, "information" only is required, and provision is made for the adoption of regulations as to the form and manner in which it shall be collected and supplied. It is to be furnished *before* sailing; this because a plan can easily be arranged under which the data, recorded at time of selling passage, can be collected as the passengers board the vessel.

SECTION 5

is a combination of sections 13 and 14 of the act of 1907, the former being relieved of repetitions and modified to require the assembling of names on manifests (because by some steamship lines there is apparently a studied effort to separate names and avoid detection of violations of the contract-labor provisions), and the latter slightly modified so as to specify that the certificate of a surgeon specially employed to verify manifests shall be made before a consular officer.

SECTION 6,

consisting of a combination of the provisions of sections 22, 23, and 32 of the act of 1907, states that the duties of the Commissioner-General of Immigration shall be performed "under the direction or with the approval of the Secretary of Commerce and Labor," and thus avoids the necessity for the awkward repetition of the phrase, as in the act of 1907, and at the same time preserves the present practice. The duties of the Commissioner-General are specified in some detail, but purposely not in an exclusive manner, which is also true of the duties of commissioners of immigration and other immigration officials in charge. There is one addition of especial importance, viz, the insertion of a clause permitting the removal from the United States of aliens who fall into distress from causes arising subsequent to entry and are anxious to return to their foreign home—which object is now partially accomplished by a regulation (rule 39).

SECTION 7.

It has been deemed advisable to state definitely by whom the inspection of aliens shall be made (viz, by "inspectors"), and thereby give statutory force to the existing custom. In this section also has been placed so much of section 24 of the act of 1907 as confers upon immigration officials the power to administer oaths. It is highly essential to good administration and the rendering of just decisions that the officials empowered by the law to decide questions arising under the immigration act shall be authorized to subpœna witnesses, and that means shall be provided to compel witnesses to appear and testify. There is accordingly inserted a provision adapted from the interstate-commerce act (24 Stat., p. 383), under which the aid of the courts may be invoked to the end desired. There are also incorporated the provisions of section 17 of the act of 1907, regarding the physical and mental examination of aliens, with the provision for the reimbursement of the Public Health and Marine-Hospital Service for expenses connected therewith eliminated, as a separate appropriation is now made for that purpose.

SECTION 8.

The changes made in section 16 of the act of 1907 in redrafting it into this section are for the purpose of rendering perfectly clear the requirement that steamship companies bringing aliens to United States ports and there permitted to place them temporarily in immigration stations or elsewhere pending inspection are to bear all the expenses incident to such detention until the aliens are actually landed. Although that is undoubtedly the present intent, some of the steamship companies have been disposed to raise a question concerning it.

SECTION 9

embodies the provisions relating to the inspection and exclusion of aliens contained in sections 24, 25, and 10 of the act of 1907. Several slight changes in language are made in the interest of clearness and comprehensibility, those regarding the appointment of boards of special inquiry being occasioned by a recent judicial decision to the effect that a board appointed by an "inspector in charge" is not a legal body, but the appointment must be made by a "commissioner of immigration."

SECTION 10

consists of a compilation of all the provisions of the immigration act and the Chinese-exclusion laws regarding classes of aliens not to be admitted. The term "tuberculosis" is defined by adding thereto "in any form." This is thought to have been the intent of the act of 1907, but said act has been regarded by some as covering only contagious forms of the disease—which were clearly covered by the term "dangerous contagious disease" contained in the law of 1903. The provision regarding anarchists has been so extended as to include the terms of section 38 of the 1907 act, and in the clause relating to criminals the modifying words "involving moral turpitude" have been made to apply only to less offenses than "felonies and other crimes." The clause defining and excluding "contract laborers" has been brought into textual agreement with the penal provisions on the same subject (sections 4–7 becoming sections 39–41, hereafter explained); also to require rejection of the laborers irrespective of whether the offers or promises inducing their immigration are true or false—so as to reach a very large class of induced immigration not covered with sufficient clearness by the present law; and further by modifying the term "labor" with the word "*manual*" to bring the law into textual agreement with its construction by the Attorney-General (27 Opins., 383), which makes it possible to eliminate the altogether meaningless proviso exempting from the classification of contract laborers professional men, artists, and others whose pursuits are strictly *mental*, now and for many years encumbering the statute. Whether or not this produces too narrow a field of operation for the alien contract-labor law is a matter for careful consideration by the legislative branch. Another very essential modification is made, viz, the proviso allowing the importation of skilled laborers, if labor of like kind unemployed is not available, is conditioned upon the permission of the Department first being obtained. This is the only reasonable and fair method of handling the matter. It has been demonstrated that the present bare exception is not fair to either the importer or those interested to prevent importations.

SECTION 11

is merely the section of the same number of the act of 1907, modified in the interest of clearness, and

SECTION 12

the proviso which was attached to section 1 of said act to enable the President and Department to deal with the Japanese-laborer situation as it existed at the time of the passage of such act.

SECTION 13

contains a list of exempt classes of aliens of the Chinese race. Every status or occupation that has been encountered or suggested in practical administration as properly falling in this category has been named. This results in a very material broadening of the present law and treaty (Art. II), which regard as "laborers" all who are not officials, merchants, teachers, students, or travelers. To thus name the exempt classes is the safer—in fact, it is believed, the only fairly safe—method of handling the matter in a statute. The term "engineer" is here used, of course, in the professional sense.

SECTION 14.

This is section 6 of the act of July 5, 1884, slightly changed to make it consist with the other sections of the draft, and to render its language exact and comprehensive. The added provision requiring a photograph to be attached to the exempt's certificate is merely making statutory a requirement long existing by custom. The term "merchant" is defined in accordance with section 2 of the act of November 3, 1893, as construed judicially and administratively; and certain useful data regarding "students" are required to be inserted in the certificate. The term "student" is, of course, used in the same sense as it has been construed under the previous law, which construction is set forth in rule 31*a* of the Chinese regulations in force now for several years. The provision regarding the visé, or approval, of the certificate has been so modified as to permit of the employment of immigration officials for that purpose when necessary or expedient; and there is added a provision for the issuance of a noncounterfeitable certificate of identity to each Chinese admitted to the United States—which is already done by regulation, but which ought to be authorized by law, as it is essential that admitted Chinese shall have in their possession permanent, incontrovertible evidence of their lawful entry.

SECTION 15,

covering the admission of the legal wives and minor natural-born (not adopted) children of members of the exempt classes, is new in the statutory law, but is a correct statement, from an administrative point of view, of the judicial exception to the law made in the case of Mrs. Gue Lim (176 U. S., 459), and the cases approved in that decision (42 Fed., 398; 83 Fed., 136; 85 Fed., 635). This judicial exception has constituted one of the greatest difficulties in enforcing the law, and unless it is defined and limited in some such manner as here proposed will continue to give trouble.

SECTION 16

is designed to close a wide and continually widening breach in the immigration law. It has never been easy to prevent violations of the law by aliens employed on vessels, and since the decision of the Supreme Court in the Taylor case (207 U. S., 120), it has been practically impossible to do so. The handling of alien seamen generally must be accomplished in such a way as to avoid undue interference with navigation and commerce. The details of such a plan can hardly be outlined in a statute; hence the proposal to invest the department with authority to adopt suitable regulations, which is altogether feasible and ought to be reasonably effective.

SECTION 17

is intended to effect a purpose similar to that of section 16, and prevent serious violations of the Chinese-exclusion laws. Recently the district court at Philadelphia has ruled in a criminal case that the exclusion laws do not apply to Chinese laborers employed as seamen. If this ruling obtains the exclusion laws will to a considerable extent become inoperative. The requirement of bond in the cases of Chinese seamen has had the sanction of the courts (101 Fed., 989), but has never been made absolute by statute, nor has there been any thorough method of identifying those bonded to prevent substitutions, which are constantly occurring. This situation is met, it is believed, by the proposed section.

SECTION 18.

So much of section 19 of the act of 1907 as relates to admission for hospital treatment is drawn into this separate section and so modified as to prevent diseased aliens' being brought to United States ports for the very purpose of being treated, as is done under the present law, although contrary to its spirit. That the expense of so treating those who contract disease on the voyage shall not be borne by the Government is also specified.

SECTION 19.

Section 26 of the act of 1907, regarding the admission of aliens under bond, is too loosely drawn to be administratively satisfactory, and therefore encourages transportation companies to accept alien passengers who ought never to be permitted to embark for or enter this country. This defect is remedied by a slight modification of the text as here reproduced. There is some doubt whether, not being parties to the bond, a State or Territory can recover under it. This is made certain by requiring that the bond shall run to all States, Territories, etc., as well as to the United States. Slight changes are also made to bring about agreement with other sections of the draft.

SECTION 20

is so much of section 19 of the act of 1907 as relates to the return of rejected aliens and a delay in the deportation for certain reasons. A provision permitting of the release under bond of those whose deportation is delayed, or the payment of a witness fee in case they are held in detention, is incorporated so that prosecutions of importers may be made more easy and effective.

SECTION 21.

Section 37 as it appeared in the act of 1903 was at least a reasonable measure. As it was worded (inadvertently, it is thought) in the act of 1907, however, it has become a source of trouble and embarrassment. Language calculated to meet the spirit of the former provision is therefore adopted, conforming substantially to that of the act of 1903, but making it plain that expenses growing out of the privilege granted are to be borne by the beneficiary.

SECTIONS 22, 23, AND 24.

It is absolutely essential if the Chinese-exclusion laws are to be placed upon a reasonable and efficient plane of administration, that a registration shall be had of all Chinese now in the United States. These three sections, based in a general way upon the registration acts of 1892 and 1893, and the acts of April 30, 1900, and April 29, 1902, regarding Hawaii and the Philippines, respectively, and in particular upon the experience of many years with the defects of the said registration acts, provide for a registration that will be fair to all, will not lend itself to the perpetration of fraud, and will be of a continuing character. This provision for a complete registration, taken in conjunction with the provisions in sections 14 and 15 of the draft for furnishing all legally admitted Chinese with a certificate of identity, will make it possible for each and every person of that race rightfully located in the country to always have at hand absolute evidence of his status, and all confusion and embarrassment will thus be avoided. Those who refuse or fail to register, without good cause, will be deported under the regular immigration plan—which has been shown to be the ideal plan for removing aliens from the country.

SECTION 25.

There are in the existing exclusion laws a number of harsh and useless restrictions on the departure and return of lawfully resident Chinese. A Chinese alien legally in the country should be allowed to leave and return as freely as aliens of other races, his identification being the only important requirement. Under this section that will be possible, and all of the restrictions that are productive of no good but of much harm will be removed.

SECTION 26

is a combination of all the sections of the act of 1907 that deal with deportation in the sense of expulsion (20, 21, 35, and 36, and parts of 3 and 18). An effort is exerted to make it inclusive of every class covered in whole or in part by existing law. The provisions dealing with criminals, anarchists, prostitutes, and procurers have been modified to a considerable extent so as to effectively rid the country of these particularly undesirable aliens, and provisos have been added to prevent terms of imprisonment served for offenses committed in this country running against the three-year limit, and eliminating the three-year limit altogether in the cases of aliens who are shown to have been at the time of admission members of said especially objectionable classes. If the law is thus slightly broadened with regard to the classes mentioned, it will be strengthened almost incalculably. There is inserted here, for the sake of regularity and clearness, a provision making the decision of the Secretary of Commerce and Labor final in cases of deportation, which is the construction now usually given the law by the courts.

SECTION 27

is devoted to the deportation (expulsion) of Chinese aliens wrongfully in or who illegally enter the country. In this respect, of course, it would not be wise to limit the time within which deportation may be effected; to do so, moreover, would be a wide departure from existing law and inconsistent with the registration provisions of the drafted measure.

SECTION 28

contains, with appropriate modifications, such of the provisions of sections 20 and 21 of the act of 1907 as relate to the manner in which the expense of deportation shall be borne. It is not thought that the deportation of such aliens as, under the proposed broadened terms of section 26 of the draft, may be removed from the country later than three years after entry should be charged to the transportation companies, but there is nothing unreasonable in requiring the responsible companies to bear the expense, as at present, when deportation is effected within three years, and this is true of Chinese as of all other aliens. The clause added at the end of this section is an incorporation into the statute of direct authority for the observance of rule 37 of the immigration regulations—adopted at the request of the largest steamship lines to avoid any interference with the control and discipline of their employees, and found to work in a satisfactory manner.

SECTION 29.

The act of 1907 contains no provision for the detention as witnesses of *arrested* aliens. In this section such provision is made, and, in order to keep such witnesses in a "willing" frame of mind, the payment of a fee during their detention, or their release under bond, is authorized, the bond being made to cover not only their production for a hearing on the charge on which arrested and their deportation (as in sec. 20, act of 1907), but also for their production as witnesses. Thus the law regarding detention of arrested aliens is brought into accord with that concerning excluded aliens (sec. 20 of this draft).

SECTION 30

is section 35 of the act of 1907, so modified as to meet every difficulty so far encountered with respect to the country to which aliens (including Chinese) shall be deported. It now often happens that the Canadian officials refuse to allow an alien (not a citizen of that country, or, if a Chinese, not having paid the $500 head tax) who has entered the United States from Canada to be put back into that country.

SECTION 31

is section 15 of the act of 1907, changed to agree with sections 3, 4, and 5 of the draft (12, 13, and 14 of the act), and to make the assessment of the $10 fine for failure to furnish accurate statistical data an administrative instead of a judicial process, thus adopting in this connection the method which has in the case of Oceanic Navigation Company *v.* United States (214 U. S., 320) received the unqualified approval of the Supreme Court as applied to the collection of the $100 fine assessed under section 9 of the act of 1907 (sec. 33 of this draft). This is necessary in view of the decision of the circuit court of appeals in the case United States *v.* Four Hundred and Twenty Dollars, mentioned in commenting on section 3 of this draft.

SECTION 32.

In this, which is a modification of section 8 of the act of 1907, as in the other penal provisions of the draft, an effort has been made to fix upon a reasonable, and yet sufficient, *minimum* and *maximum* penalty. In some localities there is so little sympathy with the laws dealing with aliens that violators sometimes receive sentences altogether inadequate to the offense. This should be prevented, and the best way is to fix the minimum as well as the maximum limit of the penalty. The attempt has also been made to so word this and all the penal provisions as to make them operative despite the tendency of the courts to adhere to perhaps unduly strict rules of construction in criminal and penal matters. That is very important in this section, as it covers the smuggling of Chinese as well as of other aliens, and the smuggling of Chinese is an exceedingly lucrative business, affording great temptation to those criminally disposed. Hence also the provision for the confiscation of vessels and vehicles used in smuggling.

SECTION 33

slightly modifies section 9 of the present act, which has had the unanimous approval of the Supreme Court in Oceanic Navigation Company *v.* United States (214 U. S., 320), and makes it apply specifically to alien seamen as well as other aliens. It is suggested, however, that the amount of the fine be doubled—i. e., be made $200; this in order to encourage the steamship companies to observe greater precaution in the physical and mental examination of aliens embarking at foreign ports for the United States, the object of the measure not being the collection of revenue but the practical prohibition of the taking on board of certain classes of afflicted aliens.

SECTION 34

is section 18 of the act of 1907 materially strengthened. And it needs to be so strengthened, for various decisions by the courts, especially one by the Supreme Court (197 U. S., 442) under the rules of strict construction observed in criminal and penal matters, have almost destroyed this important requirement, particularly in the cases of Chinese seamen and other alien seamen diseased, or criminal, or otherwise disqualified, whose cases are covered more specifically by the succeeding two sections. The duty to prevent the landing of aliens at any time or place other than as designated by immigration officials is therefore made absolute ("mandatory and unqualified")—the owners, masters, etc., are made insurers that the alien shall not land. The alternative method of punishment provided for in the latter part of the section, viz, by libeling the vessel where impracticable or inconvenient to fine or imprison a responsible person, is a suggestion made by United States Attorney Youngs, of Brooklyn, who has had a large experience in endeavoring to attain results under the present terms of the immigration and Chinese-exclusion laws dealing with this subject.

SECTIONS 35 AND 36

need no additional comment, further than to call attention to the fact that they are so drawn as to conform with sections 16 and 17 of the draft dealing with Chinese and other alien seamen.

SECTION 37

corresponds with the penal portion of section 38 of the act of 1907, except that the minimum penalty is made definite.

SECTION 38.

Modified to meet the decision of the Supreme Court in Keller *v.* United States (213 U. S., 138), and in several other minor respects, section 3 of the act of 1907 is proposed for reenactment. A provision is added making it a misdemeanor for an alien prostitute or procurer of prostitutes to return to and reenter the United States after once being deported; also that prosecutions may be instituted wherever the parties concerned may be located, as a jurisdictional doubt has arisen on that point; also that in proceedings under this section the testimony of a husband or wife shall be admitted against a wife or husband, which is required for the reason that the practice has become common for procurers to marry the immoral women they bring in and often the couple are the only parties having actual knowledge of the transaction.

SECTION 39

is a combination of sections 4 and 5 of the act of 1907, regarding contract labor, modified to agree with changes made in section 2 of the act (sec. 10 of the draft), and so as to punish the *attempt* to import, etc. As the law now stands, if the attempt is frustrated by the immigration officials, or otherwise, while the alien may be deported, the guilty person escapes punishment. An alternative method of punishment is provided, viz, a criminal prosecution for a misdemeanor to be used in cases (of frequent occurrence) in which the violator of the law is pecuniarily irresponsible.

SECTION 40

modifies section 6 of the act of 1907 to agree in text with sections 4 and 5 (preceding), and to the proviso allowing States and Territories to advertise their inducements to immigration is added a specification of exactly what they may do to make their advertisements effective. This is in the interest of clearness, and is only fair to those States that really desire and need a good class of immigration.

SECTION 41

changes section 7 of the act of 1907 to agree generally with sections 4, 5, and 6 (preceding), but attaches the civil penalty only, as in cases arising under it suit would be instituted against financially responsible parties. There is also drawn a provision to make service of process in cases arising under this section easy and certain.

SECTION 42

is so much of section 24 of the act of 1907 as describes perjury before immigration officers, so modified as to cover in a clear manner swearing before such officers with regard to an alien's admission, or readmission to, residence within, or transit through, the United States. This is an absolutely essential provision. The present law on this point with regard both to Chinese and other aliens is inadequate and unsatisfactory.

SECTION 43.

This is so much of section 19 of the act of 1907 as places upon transportation companies the duty and expense of returning excluded and expelled aliens, and penalizes a failure or refusal to comply literally with its terms—one of the most essential elements of immigration legislation. The modification to allow refusal of clearance in case of a second refusal to receive the same alien back on board is made to meet the attitude of least one line, and which might be assumed by others, that, rather than carry back an alien afflicted in an especially serious manner (a leper,.for instance), the chance of being heavily fined will be taken. The power to refuse clearance will remove all temptation in this direction. There is also added a provision to make service of process easy and certain.

SECTION 44.

This section has been so drawn as to cover, it is believed, every phase of the improper making or use of any of the certificates required under the proposed act. In this respect the present Chinese-exclusion laws (sec. 7, act of 1884; sec. 11, act of 1888; and sec. 8, act of 1892) are very deficient.

SECTION 45

is sections 29 and 27, act of 1907, with slight unimportant modifications.

SECTION 46

is a proposed reenactment of so much of section 24 of the act of 1907 as relates to the appointment of immigration officials, the latter part of said section being carried into section 9 of the draft.

SECTION 47

is section 30 of the said act, so changed as to make it perfectly clear that the exchanging of aliens' money, the feeding of detained aliens, etc., may, if deemed necessary, be done by the Government, rather than by contractors. It may at any time become desirable that the Government should do at least some of these things itself.

SECTION 48

is section 31 of the act of 1907, while

SECTION 49

is so much of section 39 of said act as gives the President authority to call a world convention on immigration questions.

SECTION 50

fixes the date the proposed measure shall take effect, names the laws repealed thereby, and adds a proviso showing to what extent only the act shall be given a retroactive effect.

APPENDIX II.

REPORT OF THE CHIEF OF THE DIVISION OF NATURALIZATION.

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF IMMIGRATION AND NATURALIZATION,
DIVISION OF NATURALIZATION,
Washington, July 1, 1909.

SIR: The third annual report of the Division of Naturalization, which is herewith respectfully presented, embraces both the administrative and the court work, under the naturalization laws, during the fiscal year ended June 30, 1909.

WORK OF THE DIVISION.

As a summary of the office work during the year the accompanying table, which shows the amount of incoming and outgoing mail, may afford an approximate view. It shows that a total of 64,556 pieces of mail were received during the year, an average per day of 217 pieces; and that there were sent out a total of 89,528 pieces, or an average of more than 300 daily. The division handled, therefore, a daily average of 517 and an aggregate of 154,084 pieces of mail.

TABLE I.—VOLUME OF MAIL HANDLED BY THE DIVISION OF NATURALIZATION, FISCAL YEAR ENDED JUNE 30, 1909.

	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Total.
Incoming mail:					
Unregistered	12,712	13,162	12,783	11,994	50,651
Registered	3,247	3,818	3,548	3,292	13,905
Total	15,959	16,980	16,331	15,286	64,556
Average per working day	228–	221–	221–	199–	217–
Outgoing mail:					
Letters	9,820	10,767	9,423	9,611	39,621
Form letters	11,653	8,332	12,072	8,140	40,197
Documents	773	1,908	5,955	1,074	9,710
Total	22,246	21,007	27,450	18,825	89,528
Average per working day:					
Letters	140+	139+	127+	125–	133–
Form letters	166+	108+	163+	106–	135–
Documents	11+	25–	80+	14+	32+
Total average	318–	273–	371–	244+	300+

How to dispose of this large volume of mail matter has been the subject of the most careful observation and thoughtful study of its character and relative importance, so as to accomplish its dispatch at the minimum cost of time and labor. This has been made possible by the adoption of such form letters as experience showed to be admissible, which, with the addition of matter pertinent to any particular case, reduced by about 90 per cent the time previously consumed in writing many classes of letters. The extent to which the use of form letters in the correspondence has grown is evidenced by the number of 40,197, as against 39,621 original typewritten letters. It may be said without hesitation that unless some such expedient had been resorted to the small force of this office would have been unable to cope with such a large correspondence, as at no time during the year has there been more than 14 clerks engaged exclusively upon correspondence.

In guiding clerks of courts in the execution of naturalization papers in conformity with the law, considerable increased correspondence must be expected annually because of the change in office of a large number of clerks of courts by election of their successors, new courts assuming jurisdiction, and other features to be referred to hereafter. To meet these conditions every effort has been made to prevent the number of letters from increasing beyond the limits of actual requirements.

The table does not show nor is there any sufficiently brief and comprehensive way completely to disclose what these figures involve. Many of the single pieces of mail received contain numbers of declarations of intention, or petitions for naturalization, or certificates of naturalization, each of which requires the same care in numbering, filing, and indexing as does a letter, and involves the exercise of even more care in the process of examination than the average letter. Also very many of them are the occasion of correspondence with the clerks of courts, the naturalization examiners, and the parties in whose names the papers are filed.

The number of such papers filed in the courts during the year, as indicated by the duplicates received in the division, is shown in the following table, in which are also given, for comparison, the corresponding figures for the preceding two fiscal years:

TABLE II.—DECLARATIONS AND PETITIONS FILED AND CERTIFICATES ISSUED, FISCAL YEARS ENDED JUNE 30, 1907–1909.

	1907.[a]	1908.	1909.	Grand total.
Declarations of intention	72,684	136,725	143,212	352,621
Petitions for naturalization	20,802	43,878	42,178	106,858
Certificates of naturalization	7,735	25,517	37,337	70,589
Total	101,221	206,120	222,727	530,068

[a] Nine months.

The declarations filed, 143,212, exceed the number of similar papers filed last year by 6,487, while the petitions for the year, 42,178, were less by 1,700 than those filed last year. There were issued by the courts 37,337 certificates of naturalization, or an excess over the number during the previous year of 11,820. The total number of duplicates of naturalization papers, therefore, which reached the division was 222,727, of which special note should be taken in connection with what has been said with reference to the constituents of the 64,556 pieces of mail of all sorts which were received and handled during the year, as shown by Table I.

It will be seen from Table III that the number of courts exercising naturalization jurisdiction increased from the 2,244 reported last year to 2,394, which represents an increase in the regular correspondents of the division of 150. The transmittals of duplicates of papers filed with these courts, the accompanying monthly reports, and quarterly accounts covering remittances, and the general correspondence naturally arising, made a material addition to the work of the division.

TABLE III.—STATE AND FEDERAL COURTS EXERCISING NATURALIZATION JURISDICTION DURING FISCAL YEARS ENDED JUNE 30, 1907–1909.

Courts.	1907.[a]	1908.	1909.
State	1,678	2,016	2,177
Federal	201	228	217
Total	1,879	2,244	2,394

[a] Nine months.

Attention is directed to the fact that the increase in the number is entirely in the state courts, the number of federal courts engaged in conferring citizenship during the year being actually less than was reported a year ago. In most cases this is doubtless due to the fact that the state courts are, as a rule, more accessible, though, as will be seen hereafter, another cause is assignable.

The following tables, Nos. IV and V, show another feature of the work of the division, which is made effective through the use of examiners in the field, in connection with their chief work of investigating the claims of petitioners for naturalization and the competency and credibility of their witnesses to petitions.

TABLE IV.—CERTIFICATES OF NATURALIZATION PRESENTED BY THE STEAMBOAT-INSPECTION SERVICE FOR EXAMINATION AS TO THEIR VALIDITY, FISCAL YEAR ENDED JUNE 30, 1909.

Number received	[a] 1,013
Reported favorably	920
Reported unfavorably	[b] 35
Canceled	20
Pending cases	58

TABLE V.—SPECIAL CASES ON WHICH THE DIVISION OF NATURALIZATION WAS REQUESTED TO PASS BY THE CIVIL SERVICE COMMISSION, FISCAL YEAR ENDED JUNE 30, 1909.

Number received	[c] 14
Reported favorably	8
Reported unfavorably	[d] 6
Canceled	3
Pending cases	0

The total number of cases, 1,013, in Table IV shows the proportion to which this branch of the work has already grown, after being so recently undertaken, as was shown in the last annual report. That the work is important is shown by the fact that in 35 of the cases it was disclosed that naturalization had been illegally procured. The "pending cases" are cases awaiting a final report by examiners to whom they have been referred. Of the 35 cases "reported unfavorably" 15 are awaiting appropriate action by the courts, while the 20 cases "canceled" were thus disposed of judicially in consequence of unfavorable reports by the examiners.

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[a] Includes 60 certificates issued under the act of June 29, 1906.

[b] Includes 15 cases pending cancellation.

[c] Includes 2 certificates issued under the act of June 29, 1906.

[d] Includes 3 cases pending cancellation.

These investigations were inaugurated for the purpose of ascertaining whether naturalized applicants for licenses under the steamboat laws of this country had procured citizenship by a compliance with the law and were entitled to such licenses.

In connection with the investigation of applications under the steamboat-inspection laws of this country for licenses, it has been ascertained that a number of naturalizations have been accomplished in the past by persons who have had no actual residence in the United States. They have, in many instances, held an actual residence in Canada during the five years of residence claimed to have been maintained within the limits of this country. Their only claim to residence in the United States is based upon the fixing of some point, generally at some port along the Great Lakes, at which they receive their mail, while serving in some capacity upon American vessels sailing the Great Lakes. At the end of the open season they have returned to their homes in Canada. This course has been pursued for a number of years, and after the lapse of sufficient time they have taken the final steps for naturalization. Under the lax observance of the law before federal supervision had been provided by Congress, there was little difficulty encountered by them in receiving the certificates of naturalization upon which they could then apply for and receive appointments to the positions of masters, pilots, first and second officers, and engineers of steam vessels of the American merchant marine, which, under the navigation and steamboat-inspection laws, are reserved for Americans.

The investigations made at the instance of the Civil Service Commission aggregated but 14, as shown by Table V, of which the large proportion of 6 resulted in the discovery of illegally obtained certificates, 3 of which the courts have canceled, while 3 are awaiting judicial action. It seems not improbable that this branch of investigation will hereafter assume larger proportions.

During the past year a large number of naturalization certificates have been taken up by the immigration authorities at the border and forwarded to this office. These certificates were taken up for the reason that their holders had, subsequent to their naturalization in this country, become subjects of the King of Great Britain and Ireland in some of the British dominions. In most instances they had become such subjects in the Dominion of Canada, and suitable steps have been taken in each instance to prevent the issuance of certified copies of certificates so surrendered without this office being first notified.

From partially completed statistics it has been shown that 282 native-born Americans naturalized in other countries have returned subsequently to the country of their nativity, and during the past year declared their intention to again become citizens of the United States. These persons have, in all respects, the same status as alien-born candidates for citizenship, and must comply with all the formalities prescribed in order to resume their American citizenship.

There has been, also, considerable correspondence with the General Land Office, in the Department of the Interior, in relation to the evidence to be supplied by persons who have filed claims under the public land laws, regarding the evidence to be produced by them to secure title to their lands.

As a result of such correspondence, the division has acquired information of instances of fraudulent and illegal procurement of citizenship, and has been enabled to report such cases to the appropriate United States attorneys for the institution of cancellation proceedings, in accordance with the terms of section 15 of the naturalization act of June 29, 1906. While no effort has been made to discover such cases as a part of the regular occupation of the examiners, in the course of their work of ascertaining the competency of witnesses to petitions for naturalization, through correspondence of the kind indicated above, by information from immigration inspectors, and by reports from the Department of State many cases of illegal naturalization have been discovered and reported for cancellation.

Some of these cases have resulted in cancellation orders by the courts, in others the Department of Justice has not thought it advisable to bring them before the courts, while others are pending. The following statement embodies information as to what has been done in this line during the year.

TABLE VI.—SUITS FOR CANCELLATION OF CERTIFICATES, FISCAL YEAR ENDED JUNE 30, 1909, BY CAUSES.

Cause.	Pending June 30, 1908.	Suits instituted.	Certificates canceled.	Pending June 30, 1909.	Cases dismissed.
Violation of United States Revised Statutes:					
Section 2165	9	195	199	5	
Section 2166		2	2		
Section 2167	20	450	355	106	6
Section 2169		2	2		
Total	29	649	558	111	6
Violation of act of June 26, 1894	1	2	3		
Renunciation of United States citizenship:					
Wrong renunciation of allegiance		2	1	1	
Formal renunciation of United States citizenship	4	6	9		
Total	4	8	10	1	
Not resident five years	14	255	150	119	
Incompetency of witnesses:					
Perjury of vouchers or witnesses	3		3		
Lack of proof of residence	15	36	43	6	2
Alien witnesses	1	8	7	2	
Petitions not completed	2	10	8		4
Total	21	54	61	8	6
Irregular procedure:					
Under 21 years when naturalized		60	33	30	
Not two years between declaration and petition	2	18	14	6	
Not ninety days between petition and final order	3	5	6	2	
Illegal declaration		2	1	1	
Admitted within thirty days of election		1	1		
Already a citizen		2	2		
Married woman living with alien husband		1	1		
Admitted under old law after Sept. 26, 1906		34	34		
No hearing in open court		1	1		
Declaration and petition filed same day	1		1		
No record of admission	1		1		
Petition filed and certificate issued same day	3		3		
Under 21 years when making declaration under old law	2		2		
Total	12	124	100	39	
Court without jurisdiction	14	25	30	10	
Lack of knowledge of Government		1			1
Immoral character		4	3	1	
Miscellaneous	4	5	6	3	
Total	18	35	39	14	1
Grand total	99	1,127	921	292	13

In addition to the foregoing, correspondence has been carried on with over 1,000 clerks of courts authorized to naturalize, to ascertain whether their courts had naturalized any aliens since the operation of the act of June 29, 1906, and to obtain the names and addresses of the aliens. This action was taken for the reason that these clerks of courts had not been supplied with legal forms. Without obtaining complete responses from all of these clerks, it had been discovered at the close of the fiscal year that 163 declarations of intention had been illegally filed and 192 orders of naturalization issued under the terms of Title XXX of the Revised Statutes, and without regard for the act of June 29, 1906, which repealed the vital sections of that title. As these cases were prepared they were promptly forwarded to the Department of Justice for the institution of proceedings to vacate the orders of admission.

It seems not unreasonable to anticipate, as stated in the last report, that hereafter there will be correspondence with the appropriate authorities in regard to those who, as naturalized citizens, seek employment under the terms of the laws in relation to appointment in the Army, Navy, and Marine Corps, as well as regards employment on public work under the laws of certain States which confine employment thereon to citizens of the United States.

Another branch of the office work which has increased greatly is the examination and approval, or correction, of accounts of moneys received by the clerks of courts as fees, and the transmission of the one-half of such fees due to the Government to the disbursing clerk of the Department, for deposit in the Treasury. The amount due the Government is ascertained by a comparison of the statement and accompanying remittance from each clerk of court with the number of duplicate naturalization papers on file in the division. Such reports and remittances are made by all clerks of courts who have been supplied with the official naturalization forms, and an examination of the files is as necessary in cases in which clerks report no transactions during the preceding quarter as where they report the contrary and inclose checks or drafts for the portion of collections due to the Government.

TABLE VII.—FEE ACCOUNTS PASSED DURING THE FISCAL YEAR ENDED JUNE 30, 1909, AND PERIODS TO WHICH THE ACCOUNTS RELATE.

	1907.				1908.					1909.				Grand total.
	2d q'r.	3d q'r.	4th q'r.	Total.	1st q'r.	2d q'r.	3d q'r.	4th q'r.	Total.	1st q'r.	2d q'r.	3d q'r.	Total.	
Transactions	2	3	7	12	13	28	108	1,598	1,747	1,549	1,567	1,499	4,615	6,374
No transactions	5	10	13	28	31	61	74	439	605	556	565	584	1,705	2,338
Total	7	13	20	40	44	89	182	2,037	2,352	2,105	2,132	2,083	6,320	8,712

As the above statement shows, the division examined and passed during the fiscal year 6,320 fee accounts for the current year, 2,352 relating to the preceding year, and 40 for the fiscal year 1907. The work of auditing these 8,712 accounts involved the writing of between 2,500 and 2,600 letters.

The official force of the division during the year consisted of substantially the same number and was assigned to the same grade of work as indicated in the last annual report. Under that arrangement, despite the many unforeseen obstacles that always appear to check the progress of official business, it is gratifying to be able to report that not only has the current work been kept up, but much accumulated work, reported heretofore, has been disposed of, bringing the division at the close of the year more nearly abreast of its business than it has ever been heretofore.

Perhaps the chief annoyance that has been experienced was the lack of another messenger. As the division is located outside of the main Department building, it makes the messenger work very onerous, resulting constantly in the delay of regular clerical work and in the assignment of clerks for extended periods to perform messenger service. This can be easily remedied and much valuable time thereby saved for more important business by authority to employ another assistant messenger.

WORK OF THE COURTS.

The accompanying statement shows that there has been a total of 2,394 courts engaged during the year in the naturalization of aliens, of which 2,177 were state courts and 217 were federal courts. These figures represent a net increase of 150 naturalization courts, 161 additional state courts having exercised such jurisdiction and 11 federal courts having ceased naturalizing. The reasons for the decrease in the number of federal courts and the increase in the number of state courts resorted to by aliens seeking naturalization are doubtless to be found in most instances in the greater convenience of access to the latter. It can not be denied, however, that the fluctuations in the amount of such business transacted from year to year by the different courts are occasioned by resort to those courts which are disposed to construe the law more liberally in favor of the petitioners than is found to be the case in other courts. In practically every State the petitioner has his election to resort to either a state court or a federal court, and naturally the choice falls upon that tribunal before which the least difficulty is experienced in acquiring citizenship.

Still another reason for such fluctuation is found in the attitude of clerks of courts, many of whom turn away applicants upon the ground that some other accessible court is transacting such business and that they have neither the time nor the inclination to undertake the business, or, having once assumed it, to continue doing so, in view of the alleged discrepancy between the onerous duties imposed upon them by the law and regulations and the fees they are allowed to retain as compensation. In addition to these reasons, in certain courts in the larger cities the amount of other business with which their dockets are burdened renders it impracticable, irrespective of the inclination of their clerks, to assume much, if any, naturalization work. This subject is discussed in another part of this report in connection with a consideration of the appropriation for the allowance to clerks of courts of additional compensation under certain conditions.

TABLE VIII.—AMOUNT OF NATURALIZATION BUSINESS PERFORMED BY THE STATE AND FEDERAL COURTS, FISCAL YEAR ENDED JUNE 30, 1909.

Courts.	Number of courts.	Declarations filed.	Petitions filed.	Certificates issued.
State	2,177	93,028	29,166	25,628
Federal	217	50,184	13,012	11,709
Total	2,394	143,212	42,178	37,337

In Table IX (page 291) there is presented, in condensed form, a complete view by quarters of the fiscal year of the naturalization papers filed in and issued out of the courts of each State.

TABLE IX.—DECLARATIONS OF INTENTION AND PETITIONS FOR NATURALIZATION FILED, AND CERTIFICATES OF NATURALIZATION ISSUED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES.

DECLARATIONS OF INTENTION FILED.

State or Territory.	Number of courts.			First quarter.			Second quarter.			Third quarter.			Fourth quarter.			Grand total.
	Federal.	State.	Total.	In federal courts.	In state courts.	Total.	In federal courts.	In state courts.	Total.	In federal courts.	In state courts.	Total.	In federal courts.	In state courts.	Total.	
Alabama	4	23	27	28	56	84	17	17	34	15	25	40	26	1	27	185
Alaska	6	....	6	77	....	77	89	....	89	102	....	102	97	....	97	365
Arizona	5	a 8	13	42	32	74	48	23	71	52	25	77	62	12	74	296
Arkansas	8	48	56	12	6	18	11	10	21	15	12	27	22	9	31	97
California	4	57	61	193	1,483	1,676	179	1,373	1,552	340	1,146	1,486	436	782	1,218	5,932
Colorado	2	58	60	43	391	434	54	390	444	49	357	406	58	342	400	1,684
Connecticut	2	8	10	350	207	557	348	342	690	195	191	386	241	178	419	2,052
Delaware	1	3	4	48	6	54	43	3	46	43	6	49	57	2	59	208
District of Columbia	1	....	1	101	....	101	86	....	86	90	....	90	101	....	101	378
Florida	6	24	30	70	11	81	66	9	75	100	5	105	90	11	101	362
Georgia	10	36	46	23	19	42	31	13	44	63	8	71	38	8	46	203
Hawaii	1	a 8	9	47	16	63	37	10	47	34	26	60	19	3	22	192
Idaho	3	24	27	15	151	166	15	151	166	22	152	174	22	284	306	812
Illinois	5	98	103	331	2,812	3,143	756	3,185	3,941	491	2,732	3,223	407	1,677	2,084	12,391
Indiana	5	80	85	336	324	660	2,734	3,963	6,697	23	48	71	30	211	241	7,669
Iowa	4	104	108	....	465	465	....	610	610	....	437	437	....	275	275	1,787
Kansas	1	103	104	....	353	353	....	1,263	1,263	....	569	569	2	122	124	2,309
Kentucky	4	53	57	14	32	46	21	33	54	15	28	43	10	25	35	178
Louisiana	5	29	34	122	13	135	300	78	378	161	34	195	121	31	152	860
Maine	1	15	16	88	67	155	66	71	137	55	88	143	46	84	130	565
Maryland	1	23	24	56	130	186	54	159	213	39	105	144	74	84	158	701
Massachusetts	2	16	18	1,620	592	2,212	1,733	1,225	2,958	1,430	907	2,337	1,511	1,001	2,512	10,019
Michigan	5	85	90	5	1,149	1,154	10	1,120	1,130	15	1,211	1,226	16	1,095	1,111	4,621
Minnesota	12	85	97	171	947	1,118	246	1,302	1,548	177	867	1,044	152	1,005	1,157	4,867
Mississippi	6	46	52	2	5	7	6	8	14	10	15	25	7	8	15	61
Missouri	8	100	108	880	53	933	703	62	765	730	34	764	588	26	614	3,076
Montana	2	28	30	5	436	441	1	577	578	2	483	485	5	934	939	2,443
Nebraska	2	91	93	4	1,320	1,324	5	1,109	1,114	....	397	397	1	346	347	3,182
Nevada	1	14	15	2	95	97	....	81	81	3	80	83	....	97	97	358
New Hampshire	1	11	12	4	76	80	11	277	288	4	81	85	4	89	93	546
New Jersey	1	20	21	3	1,471	1,474	11	1,280	1,291	....	1,207	1,207	2	806	808	4,780
New Mexico	6	a 20	26	48	23	71	15	36	51	18	18	36	28	23	51	209
New York	5	62	67	2,857	3,185	6,042	3,146	3,671	6,817	3,552	3,486	7,038	3,108	3,330	6,438	26,335
North Carolina	7	32	39	2	10	12	....	5	5	5	5	10	....	8	8	35
North Dakota	3	46	49	19	534	553	38	717	755	12	535	547	21	601	622	2,477

a Territorial courts.

TABLE IX.—DECLARATIONS OF INTENTION AND PETITIONS FOR NATURALIZATION FILED, AND CERTIFICATES OF NATURALIZATION ISSUED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES—Continued.

DECLARATIONS OF INTENTION FILED—Continued.

State or Territory.	Number of courts.			First quarter.			Second quarter.			Third quarter.			Fourth quarter.			Grand total.
	Federal.	State.	Total.	In federal courts.	In state courts.	Total.	In federal courts.	In state courts.	Total.	In federal courts.	In state courts.	Total.	In federal courts.	In state courts.	Total.	
Ohio	3	85	88	108	988	1,096	130	1,136	1,266	132	976	1,108	153	935	1,088	4,558
Oklahoma	2	59	61	3	97	100	7	96	103	3	112	115	4	47	51	369
Oregon	2	34	36	9	331	340	10	391	401	12	359	371	12	423	435	1,547
Pennsylvania	6	59	65	2,410	913	3,323	3,020	974	3,994	3,326	1,039	4,365	2,283	806	3,089	14,771
Rhode Island	2	1	3	235	....	235	256	19	275	287	39	326	436	67	503	1,339
South Carolina	5	15	20	12	1	13	4	2	6	6	8	14	11	11	22	55
South Dakota	1	55	56	1	426	427	1	1,052	1,053	2	282	284	1	339	340	2,104
Tennessee	6	20	26	28	....	28	20	3	23	30	2	32	33	3	36	119
Texas	21	145	166	67	149	216	125	201	326	177	564	741	84	132	216	1,499
Utah	1	27	28	3	150	153	12	206	218	8	129	137	9	151	160	668
Vermont	2	14	16	63	28	91	129	24	153	33	11	44	237	7	244	532
Virginia	9	48	57	68	23	91	45	19	64	66	20	86	68	25	93	334
Washington	6	38	44	461	693	1,154	422	1,783	2,205	316	640	956	528	724	1,252	5,567
West Virginia	8	35	43	43	87	130	68	78	146	42	89	131	32	46	78	485
Wisconsin	2	71	73	72	1,351	1,423	93	3,090	3,183	79	808	887	46	805	851	6,344
Wyoming	1	13	14	5	159	164	11	273	284	12	99	111	13	114	127	686
Total	217	2,177	2,394	11,206	21,866	33,072	15,233	32,520	47,753	12,393	20,497	32,890	11,352	18,145	29,497	143,212

PETITIONS FOR NATURALIZATION FILED.

State or Territory.	Number of courts.			First quarter.			Second quarter.			Third quarter.			Fourth quarter.			Grand total.
	Federal.	State.	Total.	In federal courts.	In state courts.	Total.	In federal courts.	In state courts.	Total.	In federal courts.	In state courts.	Total.	In federal courts.	In state courts.	Total.	
Alabama	4	23	27	8	19	27	13	4	17	12	13	25	7	6	13	82
Alaska	6	....	6	24	....	24	28	....	28	20	....	20	16	....	16	88
Arizona	5	[a]8	13	19	9	28	10	11	21	16	5	21	20	4	24	94
Arkansas	8	48	56	5	4	9	9	6	15	5	7	12	4	9	13	49
California	4	57	61	114	519	633	67	244	311	80	351	431	94	265	359	1,734
Colorado	2	58	60	16	168	184	10	112	122	10	97	107	8	107	115	528
Connecticut	2	8	10	134	80	214	82	69	151	48	47	95	72	76	148	608
Delaware	1	3	4	19	....	19	13	2	15	10	1	11	14	1	15	60
District of Columbia	1	....	1	25	....	25	23	....	23	30	....	30	52	....	52	130
Florida	6	24	30	19	9	28	27	9	36	24	4	28	12	13	25	117
Georgia	10	36	46	10	2	12	15	9	24	9	4	13	12	....	12	61
Hawaii	1	[a]8	9	14	4	18	5	1	6	9	....	9	3	1	4	37
Idaho	3	24	27	6	50	56	3	77	80	3	94	97	....	113	113	346

Illinois	5	98	103	119	824	943	159	705	864	92	690	782	76	419	496	3,084
Indiana	5	80	85	20	37	57	44	65	109	8	40	48	4	47	51	265
Iowa	4	104	108	....	152	152	....	232	232	1	148	149	....	128	128	661
Kansas	1	103	104	....	123	123	....	182	182	1	114	115	....	100	100	520
Kentucky	4	53	57	2	10	12	2	10	12	....	6	6	2	11	13	43
Louisiana	5	29	34	33	2	35	84	15	99	50	12	62	83	10	43	239
Maine	1	15	16	45	33	78	21	38	59	9	18	27	16	36	52	216
Maryland	1	23	24	28	44	72	17	43	60	27	31	58	49	48	97	287
Massachusetts	2	16	18	404	263	667	370	343	713	390	320	710	319	421	740	2,830
Michigan	5	85	90	4	410	414	2	460	462	7	488	495	2	561	563	1,934
Minnesota	12	85	97	98	475	573	65	561	626	83	557	640	69	494	563	2,402
Mississippi	6	46	52	1	10	11	1	1	2	2	1	3	2	5	7	23
Missouri	8	100	108	243	30	273	162	23	185	115	24	139	109	60	169	766
Montana	2	28	30	....	148	148	2	144	146	1	125	126	2	113	115	535
Nebraska	2	91	93	....	195	195	....	243	243	....	174	174	1	183	184	796
Nevada	1	14	15	....	28	28	1	16	17	....	18	13	....	21	21	79
New Hampshire	1	11	12	....	39	39	2	83	85	3	31	34	....	39	39	197
New Jersey	1	20	21	....	423	423	....	382	382	....	449	449	....	333	333	1,587
New Mexico	6	[a] 20	26	8	7	15	6	12	18	9	9	18	5	11	16	67
New York	5	62	67	617	1,048	1,665	660	902	1,562	901	1,355	2,256	1,033	1,266	2,299	7,782
North Carolina	7	32	39	1	3	4	....	2	2	3	1	4	....	4	4	14
North Dakota	3	46	49	....	416	416	....	474	474	....	392	392	....	393	393	1,675
Ohio	3	85	88	40	280	320	35	247	282	25	247	272	30	296	326	1,200
Oklahoma	2	59	61	6	73	79	1	73	74	....	76	76	1	63	64	293
Oregon	2	34	36	15	79	94	12	79	91	12	111	123	9	125	134	448
Pennsylvania	6	59	65	756	271	1,027	743	222	965	841	328	1,169	713	314	1,027	4,182
Rhode Island	2	1	3	137	....	137	68	....	68	140	....	140	219	....	219	564
South Carolina	5	15	20	1	2	3	....	1	1	2	4	6	....	7	7	17
South Dakota	1	55	56	6	125	131	2	115	117	2	112	114	....	147	147	509
Tennessee	6	20	26	13	3	16	9	....	9	6	....	6	6	3	9	40
Texas	21	145	166	26	74	100	32	69	101	32	74	106	25	49	74	381
Utah	1	27	28	4	41	45	15	35	50	7	39	46	6	32	38	179
Vermont	2	14	16	23	1	24	102	4	106	19	....	19	89	5	94	243
Virginia	9	48	57	14	5	19	22	8	30	24	11	35	24	15	39	123
Washington	6	38	44	115	322	437	114	245	359	99	220	319	97	241	338	1,453
West Virginia	8	35	43	7	17	24	15	15	30	10	25	35	12	16	28	117
Wisconsin	2	71	73	40	514	554	39	649	688	59	539	598	48	462	510	2,350
Wyoming	1	13	14	2	62	64	2	22	24	2	19	21	3	31	34	143
Total	217	2,177	2,394	3,241	7,453	10,694	3,114	7,264	10,378	3,339	7,345	10,684	3,318	7,104	10,422	42,178

[a] Territorial courts.

TABLE IX.—DECLARATIONS OF INTENTION AND PETITIONS FOR NATURALIZATION FILED, AND CERTIFICATES OF NATURALIZATION ISSUED, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES—Continued.

CERTIFICATES OF NATURALIZATION ISSUED.

State or Territory.	Number of courts.			First quarter.			Second quarter.			Third quarter.			Fourth quarter.			Grand total.
	Federal.	State.	Total.	In federal courts.	In state courts.	Total.	In federal courts.	In state courts.	Total.	In federal courts.	In state courts.	Total.	In federal courts.	In state courts.	Total.	
Alabama	4	23	27	6	1	7	6	14	20	7	8	15	6	....	6	48
Alaska	6	....	6	1	....	1	32	....	32	14	....	14	8	....	8	55
Arizona	5	a 8	13	8	1	9	19	9	28	3	2	5	12	11	23	65
Arkansas	8	48	56	....	3	3	4	....	4	9	10	19	5	1	6	32
California	4	57	61	69	390	459	44	287	331	57	274	331	48	141	189	1,310
Colorado	2	58	60	15	142	157	17	129	146	12	91	103	8	68	76	482
Connecticut	2	8	10	98	79	177	149	107	256	112	66	178	42	34	76	687
Delaware	1	3	4	26	....	26	13	....	13	17	....	17	13	2	15	71
District of Columbia	1	....	1	13	....	13	20	....	20	16	....	16	25	....	25	74
Florida	6	24	30	18	2	20	11	6	17	25	8	33	35	....	35	106
Georgia	10	36	46	....	1	1	18	1	19	9	9	18	6	2	8	46
Hawaii	1	a 8	9	3	2	5	12	4	16	6	....	6	6	....	6	33
Idaho	3	24	27	4	44	48	....	84	84	3	42	45	6	65	71	248
Illinois	5	98	103	49	784	833	83	588	671	108	688	796	68	324	392	2,692
Indiana	5	80	85	....	40	40	....	23	23	1	52	53	75	38	113	229
Iowa	4	104	108	....	258	258	....	117	117	....	220	220	1	114	115	710
Kansas	1	103	104	....	45	45	....	109	109	....	171	171	1	128	129	454
Kentucky	4	53	57	4	5	9	2	3	5	2	7	9	1	12	13	36
Louisiana	5	29	34	....	3	3	40	6	46	72	10	82	57	7	64	196
Maine	1	15	16	25	35	60	22	13	35	38	47	85	6	16	22	202
Maryland	1	23	24	20	31	51	30	15	45	18	52	70	22	25	47	213
Massachusetts	2	16	18	424	289	713	342	203	545	374	298	672	265	258	523	2,453
Michigan	5	85	90	4	752	756	3	184	187	....	406	406	1	387	388	1,737
Minnesota	12	85	97	64	535	599	110	485	595	60	395	455	68	598	666	2,315
Mississippi	6	46	52	....	1	1	....	2	2	2	5	7	....	2	2	12
Missouri	8	100	108	119	17	136	149	17	166	232	25	257	90	7	97	656
Montana	2	28	30	....	179	179	1	132	133	2	103	105	....	93	93	510
Nebraska	2	91	93	....	127	127	....	198	198	....	147	147	....	222	222	694
Nevada	1	14	15	3	28	31	....	13	13	....	6	6	....	10	10	60
New Hampshire	1	11	12	2	69	71	....	12	12	....	32	32	3	43	46	161
New Jersey	1	20	21	....	585	585	....	239	239	....	440	440	....	237	237	1,501
New Mexico	6	a 20	26	1	3	4	1	4	5	5	8	13	1	11	12	34
New York	5	62	67	735	712	1,447	578	789	1,367	685	936	1,621	754	1,247	2,001	6,436
North Carolina	7	32	39	3	....	3	....	....	....	....	4	4	....	1	1	8
North Dakota	3	46	49	....	446	446	....	556	556	....	205	205	....	527	527	1,734
Ohio	3	85	88	34	288	322	33	174	207	27	176	203	17	184	201	933

Oklahoma	2	59	61	....	58	58	....	55	55	6	80	86	1	37	38	237
Oregon	2	34	36	4	107	111	15	74	89	10	64	74	7	103	110	384
Pennsylvania	6	59	65	969	322	1,291	568	132	700	884	212	1,096	722	234	956	4,043
Rhode Island	2	1	3	209	....	209	136	....	136	73	....	73	139	....	139	557
South Carolina	5	15	20	....	....	....	....	....	....	1	6	7	1	2	3	10
South Dakota	1	55	56	3	136	139	3	127	130	4	109	113	1	91	92	474
Tennessee	6	20	26	1	1	2	2	....	2	12	....	12	2	....	2	18
Texas	21	145	166	10	39	49	27	68	95	20	92	112	49	64	113	369
Utah	1	27	28	1	36	37	7	30	37	11	23	34	7	33	40	148
Vermont	2	14	16	18	8	26	26	....	26	90	5	95	....	....	....	147
Virginia	9	48	57	6	5	11	14	8	22	12	1	13	17	15	32	78
Washington	6	38	44	100	358	458	84	242	326	78	258	336	89	209	298	1,418
West Virginia	8	35	43	20	20	40	....	7	7	5	18	23	11	17	28	98
Wisconsin	2	71	73	34	281	315	40	487	527	56	403	459	45	692	737	2,038
Wyoming	1	13	14	3	38	41	1	13	14	1	21	22	1	9	10	87
Total	217	2,177	2,394	3,126	7,306	10,432	2,662	5,766	8,428	3,179	6,235	9,414	2,742	6,321	9,063	87,337

[a] Territorial courts.

DISTRIBUTION OF NATURALIZATION.

From an analysis of the foregoing tables it will appear that, as might be anticipated, the four States in which the principal work of naturalization is transacted are, in the order in which they are given in the subjoined statement, New York, Pennsylvania, Illinois, and Massachusetts. A comparison of these figures with the corresponding ones in the last annual report shows but comparatively slight variation in the number of petitions filed in each of these States during the two years. It is worthy of note, however, that in each of these States there has been a marked increase in the number of certificates issued. The figures are as follows:

Certificates issued in—	1908.	1909.
New York	5,051	6,456
Pennsylvania	1,967	4,043
Illinois	1,711	2,672
Massachusetts	1,669	2,453
Total	10,398	15,624

The increase in these four States in the number of persons naturalized is thus seen to be 5,226, or more than 50 per cent, as compared with those admitted to citizenship in the same States last year. The figures are taken for these four States simply for illustration, because in them has been transacted between 40 and 50 per cent of the total naturalization business of the country, and what is shown in regard to them is true of the entire United States. Thus there were filed altogether in the fiscal year 1908, 43,878 petitions, while in 1909 the number was 42,178, or a decrease for the year under consideration of 1,700. On the other hand, the total number of certificates of naturalization issued in 1908 was 25,517, and in 1909, 37,337, an increase for the year just completed of 11,820, or more than 46 per cent.

This particular feature of the returns for the year is confirmatory of the opinion expressed in the last report, that the actual naturalization of aliens had not reached the average that might be anticipated, nor has the average yet been reached. As the statutory limitation of seven years vitality for declarations approaches, there must be a very great increase in the number of petitions filed and certificates granted. The 72,684 declarations filed in 1907 are maturing now and must be used within five years; the 136,725 filed in 1908 are beginning to mature, and must be used to support petitions within six years; while the 143,312 filed during the past year will begin to mature in a year. Thus, it is plain that there will be some 350,000 petitions filed within the next ensuing seven years, an average of 50,000 per annum, leaving out of consideration very many that will be filed during the same seven years on declarations yet to be made. It seems not unreasonable to assume that at no time in the near future will the number of persons naturalized annually fall below 50,000, and it may within a few years considerably exceed that figure.

It is both interesting and of practical value to note from the foregoing tables the division of the business of naturalization between the state and federal courts. Virtually throughout the country, except in New York, Pennsylvania, and Massachusetts, this work is performed chiefly by the courts of the States, an arrangement that seems more convenient on the score of accessibility to the public, and to impose a lesser burden upon any one court, since the state tribunals so far exceed in number those of the United States. It is also in the direction of good administration of the law, as it enables the courts to devote more time and care to each case than is possible where they have to dispose of a very large docket of such cases.

The accompanying statement gives the amount of work in the state and federal courts, respectively, during the past year, in the three Eastern States of New York, Pennsylvania, and Massachusetts; in the three Middle Western States of Illinois, Michigan, and Minnesota, and in one Pacific Coast State, California.

TABLE X.—AMOUNT OF NATURALIZATION WORK IN STATE AND FEDERAL COURTS, RESPECTIVELY, FISCAL YEAR ENDED JUNE 30, 1909, IN SPECIFIED STATES.

State.	Number of courts.	Declarations.	Petitions.	Certificates.
New York:				
Federal courts	5	12,663	3,211	2,752
State courts	62	13,672	4,571	3,684
Pennsylvania:				
Federal courts	6	11,039	3,053	3,143
State courts	59	3,732	1,135	900
Illinois:				
Federal courts	5	1,985	119	308
State courts	98	10,406	2,638	2,384
Massachusetts:				
Federal courts	2	6,294	1,483	1,405
State courts	16	3,725	1,347	1,048
Michigan:				
Federal courts	5	46	15	8
State courts	85	4,575	1,919	1,729
Minnesota:				
Federal courts	12	746	315	302
State courts	85	4,121	2,087	2,315
California:				
Federal courts	4	1,148	355	218
State courts	57	4,784	1,379	1,092

It appears that in the three great Eastern States mentioned, more naturalization business is handled by 13 federal courts than by 137 state courts. It follows that there is a congestion of such business in these federal courts, with all the embarrassments which attend overcrowded dockets, both to the dispatch of other business and to the effective disposal of naturalization cases. In New York and Pennsylvania this situation is accentuated by the refusal of the clerks of two of the federal courts in large cities to assume the duties imposed upon them by the naturalization law. As a natural result of this condition, complaints are made that applicants for naturalization are not attended to promptly, that not enough compensation is allowed for clerical work, and that the courts are embarrassed by the amount of work they are called upon to do.

The figures from the courts of the three Western States and from California show a much more reasonable division of the work, the courts of the State discharging a fair proportion of naturalization. From these States come no complaints such as those from New York and Pennsylvania.

Congress has recently passed an appropriation bill, with a view to relieving the condition in those States from which complaints have come, providing for an allowance of additional compensation for clerical service in those courts in which the maximum annual fees, provided by law to be retained by clerks, $3,000, proves insufficient to pay for as many additional clerks as are required to promptly dispose of the cases presented.

There seems to be a good reason to doubt, however, whether such an arrangement will do more than shift the congestion from the clerks' offices to the dockets of courts, thus merely transferring the trouble instead of overcoming it. Certainly such will be the result in those courts which have already as many cases as they can properly dispose of, a situation that apparently exists in those very courts whose clerks are not, with the $3,000 retained by them, caring for all of the applicants appearing before them. It may not be perfectly clear how such a result can be accomplished, but there can be little doubt that the true remedy is not an increase of compensation to the clerks of the courts, but a more uniform assumption of the work between state and federal courts, such as is shown to prevail in the Western States by the figures given above. In any event, it does not seem that complaint can be made justly by persons who elect to remain in the large centers of alien population if they are delayed in securing citizenship there because the number of petitioners is in excess of the power of the courts to hear and dispose of promptly. Their removal to other States would avoid the delay and, incidentally, accomplish the purposes of legislation passed specifically to avoid other embarrassments resulting from the habit of aliens to settle in the large eastern cities.

In the State of Rhode Island, although some declarations were filed, no other naturalization business was transacted by the state courts. On the other extreme, all the naturalization business in the State of Iowa was done by the state courts. In New Jersey and North Dakota petitions for naturalization were filed exclusively in state courts, and in New Jersey, North Dakota, and Nebraska the state courts alone issued certificates of naturalization.

These variations are doubtless caused by local conditions, of which the division has no information, nor does there appear any necessity to ascertain the reason, unless, as in some instances, the federal courts refuse to assume the duty imposed upon them by the naturalization law, notwithstanding the loading of courts in the same jurisdiction with more cases than they can properly dispose of, thereby greatly delaying applicants for citizenship. Such instances are found in the United States circuit courts in Brooklyn, N. Y., and Pittsburg, Pa., although in both of said cities the clerks of other courts attending to the naturalization of aliens state that it is impossible, within the compensation allowed them by law, to dispose promptly of the cases presented before them. As intimated elsewhere in this report, this is a situation to which due weight must be given in deciding whether compensation additional to the $3,000 fixed by law shall be allowed out of the special appropriation therefor to the clerks who are forced to assume more than they can now dispose of in places where there are other federal courts refusing to undertake the business of naturalization.

The accompanying statement of the relative amount of naturalization work done in the courts mentioned during 1908 and 1909 shows that in all courts in New York City, except the supreme court for Kings County, fewer papers were filed during 1909 than in 1908, notwithstanding the large number of applicants for naturalization papers and complaints of inability to have their papers filed.

TABLE XI.—AMOUNT OF NATURALIZATION WORK IN SPECIFIED COURTS, FISCAL YEARS ENDED JUNE 30, 1907-1909.

	Declarations filed.	Petitions filed.	Certificates issued.	Total papers.
Supreme court, New York County:				
1907 (five months)	1,478	547	80	2,105
1908	3,457	1,140	753	5,350
1909	2,742	1,090	822	4,654
Total	7,677	2,777	1,655	12,109
United States circuit court, New York:				
1907 (nine months)	6,714	106	44	6,864
1908	11,319	367	207	11,893
1909	7,913	320	380	8,613
Total	25,946	793	631	27,370
United States district court, New York:				
1907 (nine months)	337	968	427	1,732
1908	1,340	1,427	966	3,733
1909	753	1,491	1,101	3,345
Total	2,430	3,886	2,494	8,810
United States district court, Brooklyn:				
1907 (nine months)	5,060	1,141	556	6,757
1908	4,692	1,783	1,392	7,867
1909	3,736	1,271	1,172	6,179
Total	13,488	4,195	3,120	20,803
Supreme court, Kings County, Brooklyn:				
1907 (five months)	1,015	158	13	1,186
1908	3,173	866	310	4,349
1909	3,663	1,226	1,029	5,918
Total	7,851	2,250	1,352	11,453
United States district court, Pittsburg:				
1907 (nine months)	847	189	76	1,112
1908	2,863	910	295	4,068
1909	3,439	935	1,049	5,423
Total	7,149	2,034	1,420	10,603

The evident congestion of work in the United States district courts in Brooklyn and Pittsburg, respectively, can be relieved by requiring the clerks of the United States circuit courts in those cities to receive naturalization papers.

DENIALS OF PETITIONS.

The number of petitions denied during the year was 6,341, as compared with 3,300 in 1908 and 250 in 1907.

As the following table shows, the majority of the denials were based upon other grounds than the personal qualifications of the petitioners, although the evidence before the courts also involved the morals of the petitioners in a large number of cases, as well as their failure to comply with the law as shown by the orders of dismissal. Thus, for failing to appear after repeated notification, at the various times set for the hearing of their petitions, 2,067 cases were dismissed; incompetency of witnesses occasioned 1,820 denials; 193 petitions were withdrawn; lack of jurisdiction caused the rejection of 325 cases; 267 applicants were denied because the declarations upon which they petitioned had been filed during minority, before the passage of the act of June 29, 1906; 124 because petitioners were shown to be already citizens; 241 because petitioners had not proven the statutory residence; 103 because petitions had been filed prematurely; and 647 for various other reasons. The denials upon the ground of lacking the requisite qualifications—that is, on the merits of the cases—were 554 cases, or a little over 8 per cent of the total denials. Of these, 84 were on the score of immorality, 449 because of ignorance of American institutions, and 21 because they were not "white persons" in the sense of those words in section 2169 of the Revised Statutes.

TABLE XII.—CERTIFICATES OF NATURALIZATION DENIED, WITH REASONS FOR DENIALS, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES.

State or Territory.	Certificates denied, and reasons therefor.															Certificates granted.	Total petitions disposed of.	Percentage of denials.
	Already a citizen.	Immoral character.	Incompetent witnesses.	Insufficient residence.	Insufficient knowledge of Government.	Irregular procedure.	Minor.	No declaration.	No jurisdiction.	Petitioner's motion.	Premature petition.	Want of prosecution.	Sec. 2169, U. S. R. S.	Miscellaneous.	Total.			
Alabama														1	1	48	49	2.04
Alaska			1									2			3	55	58	5.17
Arizona		1	2		3	1	3		1	3		14		2	30	65	95	31.58
Arkansas			2											1	3	32	35	8.57
California	5	9	170	21	41		2		11	77	8	300		26	670	1,310	1,980	33.84
Colorado	4	2	55	7		2	10	5	13	1	3	40		9	151	482	633	23.85
Connecticut			8	5	9					2		7		2	33	687	720	4.58
Delaware		1		1											2	71	73	2.74
District of Columbia					10							9		2	21	74	95	22.11
Florida																105	105	.00
Georgia			1											1	2	46	48	4.17
Hawaii							1								1	33	34	2.94
Idaho	3	1	6				11		2	1		17		6	47	248	295	15.93
Illinois	3	2	145	10	19	1	21	3	20	28	6	224		35	517	2,692	3,189	16.21
Indiana			8							2		2		4	16	229	245	6.53
Iowa		1	57	1	5		5	1	2	3	6	24		11	116	710	826	14.04
Kansas		1	43	5	3		2	2	8	4		26		45	139	454	593	23.44
Kentucky			1						1	1		1		1	5	36	41	12.20
Louisiana			1							1					2	195	197	1.02
Maine		1	1	2	2				2						8	202	210	3.81
Maryland			1									20		2	23	213	236	9.75
Massachusetts		4	8	6	12				5	6	2	35		23	101	2,453	2,554	3.95
Michigan	1	7	183	20	15		29	5	10	5	5	134		39	453	1,737	2,190	20.68
Minnesota	11	2	37	14	4		20	3	22	4	11	121		33	282	2,315	2,597	10.86
Mississippi														2	2	12	14	14.29
Missouri		3	29	5	25		1	1	1	5	2	13		9	94	656	750	12.53
Montana	6		1	3	15		22		4	2	10	30		15	108	510	618	17.48
Nebraska	4	4	84	5			20	3	25	2	3	20		12	182	694	876	20.78
Nevada			3	1						4	1	21		1	31	60	91	34.07
New Hampshire			4	1	1				1	1				2	10	161	171	5.85
New Jersey	6	6	243	25	17		5	1	28	2	1	149		26	509	1,501	2,010	25.32
New Mexico	1		2	1			3					3		2	12	34	46	26.09
New York	2	14	235	19	170		1	5	52	6	3	387	4	75	973	6,456	7,429	13.10
North Carolina			1												1	8	9	11.11
North Dakota	33	3	76	14	3	1	19	2	20	3	8	49	6	40	277	1,734	2,011	13.77

TABLE XII.—CERTIFICATES OF NATURALIZATION DENIED, WITH REASONS FOR DENIALS, FISCAL YEAR ENDED JUNE 30, 1909, BY STATES—Continued.

State or Territory.	Certificates denied, and reasons therefor.															Certificates granted.	Total petitions disposed of.	Percentage of denials.
	Already a citizen.	Immoral character.	Incompetent witnesses.	Insufficient residence.	Insufficient knowledge of Government.	Irregular procedure.	Minor.	No declaration.	No jurisdiction.	Petitioner's motion.	Premature petition.	Want of prosecution.	Sec. 2169, U. S. R. S.	Miscellaneous.	Total.			
Ohio		4	124	16	22		3		7	6	4	117		16	319	933	1,252	25.84
Oklahoma	13		18	2	3		1		20	2	2	8		36	105	237	342	30.70
Oregon	4		3	3	2		15		2	1		16		6	52	384	436	11.93
Pennsylvania	5	2	136	20	52				8	8	13	123		20	387	4,043	4,430	8.74
Rhode Island		1	1	4	2						1				9	557	566	1.59
South Carolina				1			1								2	10	12	16.67
South Dakota	10		6	7			5		7	1	3	14		9	62	474	536	11.57
Tennessee			2				1		1		1	3		5	13	18	31	41.94
Texas			1	1		1	2			1	2	6			14	369	383	3.66
Utah		1	21	2	1		3			1	2	8		2	41	148	189	21.69
Vermont				2	2			4	1	3				2	14	147	161	8.70
Virginia										1				1	2	78	80	2.50
Washington	4	4	8	9	7		26	2	26	4	3	63	11	16	183	1,418	1,601	11.43
West Virginia			9				1				1	13		5	29	98	127	22.83
Wisconsin	2	9	63	7	4		33	1	24	2	2	43		37	227	2,038	2,265	10.02
Wyoming	7	1	20	1			1		1			5		21	57	87	144	39.58
Total	124	84	1,820	241	449	6	267	38	325	193	103	2,067	21	603	6,341	37,337	[a] 43,678	14.46

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[a] 43,678 petitions disposed of during year; 42,178 petitions filed during year; 1,500 petitions heard during 1909 which were filed during preceding year.

As indicative of the effectiveness of the investigations by the naturalization examiners in the administration of the law by the courts, attention is directed to the following statement:

Fiscal year.	Certificates issued.	Certificates refused.	Ratio of denials.
			Per cent.
1907	7,735	250	3
1908	25,517	3,330	11
1909	37,337	6,341	14
Total	70,589	9,921	....

If one is disposed to think, in view of the fact, as already shown, that only about 8 per cent of the denials during the year was based upon the merits of the cases, that the results reported are trivial, it should be considered that in each of the cases denied, constituting more than 14 per cent of the petitions actually heard, a violation of some provision of the law was prevented. If such a law as the act of June 29, 1906, was necessary to avoid the abuses which were so notorious under former acts, it must be conceded that the only way of testing the value of the recent act is to enforce its provisions strictly. That the courts are requiring a strict conformity thereto on the part of petitioners, as shown by the increasing ratio of denials, gives the gratifying assurance that the law will be observed for the all-sufficient reason that it is the law, be the grounds of such denials substantial or "merely technical," to use a disparaging term resorted to by those who are not in genuine and intelligent sympathy with the reform sought. The number of cases of the latter class will become fewer as the years advance and the time and attention of administrative officers and the courts will be concentrated more on those cases in which the merits of the petitioner are alone under question. Besides, in those cases in which admission was refused on "formal" grounds, it is wholly gratuitous to assume that there was no "substantial" reason to support the same conclusion. As has been stated previously, the courts dismissed many petitions because they did not comply with the law, neither the court nor the examiners representing the Government at the hearings taking into consideration the qualifications of the petitioners, since such consideration, under the circumstances presented, would have been futile.

Table XIII, on page 304, shows the number of criminal prosecutions instituted under the act during the year and the disposal made of those cases.

TABLE XIII.—PROSECUTIONS UNDER SECTION 23 OF THE NATURALIZATION ACT OF JUNE 29, 1906, AND UNDER SECTIONS OF THE REVISED STATUTES OF THE UNITED STATES RELATIVE TO NATURALIZATION, BY STATES.

State.	Prosecutions.	Acquittals.	Convictions.	Fines.	Jail sentences.	Pending.
California	1	....	....	....	....	1
Connecticut	1	....	1	....	1	....
Illinois	1	....	....	....	....	1
Michigan	1	....	1	1	....	....
New Jersey	5	....	4	3	1	1
New York	21	4	5	2	3	12
Ohio	1	....	....	....	....	1
Pennsylvania	3	1	2	1	1	....
West Virginia	1	....	....	....	....	1
Total	35	5	13	7	6	17

AMOUNTS OF THE FINES IMPOSED.

United States district courts:	
Trenton, N. J	$100.00 100.00 500.00
New York, N. Y	50.00 15.00
Philadelphia, Pa	300.00
Circuit court of Wayne County, Mich	50.00
Total	1,115.00

DESTRUCTION OF RECORDS.

The following table shows the total number of court records which have been destroyed by fire. The duplicates of the records now in the files of the division furnish the only authoritative source of restoration.

TABLE XIV.—DESTRUCTION OF COURT-HOUSES AND NATURALIZATION RECORDS.

Place and date of destruction.	Declarations.			Petitions.			Certificates.		
	Furnished.	Destroyed.	Restored.	Furnished.	Destroyed.	Restored.	Furnished.	Destroyed.	Restored.
Hudson, N. Y. (Jan. 27, 1907)	10	10	....	10	10	....	10	10	....
Houston, Tex. (Dec. 1, 1907)	105	105	96	60	60	26	10	10	4
Oconto, Wis. (Sept. 18, 1907)	200	[a] 200	....	200	[a] 200	....	30	....	....
Vermillion, S. Dak. (July 8, 1907) [b]	40	2	....	20	5	....	10	....	....
Milan, Mo. (June 27, 1908)	10	10	1	10	10	2	10	10	2
Harrison, Ark. (May 5, 1908)	10	9	1	10	5	5	10	6	....
Nowata, Okla. (Jan. 30, 1909) [c]	10	10	....	10	10	....	20	20	....
Mercer, Pa. (Apr., 1909)	300	[a] 56	....	150	[a] 84	....	50	39	....
Red Lake Falls, Minn. (Apr., 1909)	45	....	....	150	....	....	85	....	....

[a] Loose sheets destroyed; record books preserved.
[b] Fire in mail car.
[c] No business had been transacted in this court.

An interesting and suggestive subject for consideration will be found in the accompanying statement, which shows the number of declarations filed during each fiscal year since the act of June 29, 1906, has been in operation in those States which bestow the privilege of suffrage upon alien declarants.

TABLE XV.—DECLARATIONS OF INTENTION FILED IN THE STATES WHICH ALLOW ALIENS THE RIGHT OF FRANCHISE AFTER MERELY DECLARING THEIR INTENTION.

State.	1907.	1908.	1909.	State.	1907.	1908.	1909.
Arkansas	42	85	97	Texas	622	1,233	1,499
Indiana	1,195	772	7,669	Oregon	912	1,663	1,547
Kansas	545	631	2,309	Wisconsin [a]	1,709	5,193	6,344
Michigan	1,692	4,164	4,621				
Missouri	1,126	2,769	3,076	Total	8,588	18,161	30,344
Nebraska	745	1,651	3,182				

[a] A joint resolution was adopted by the legislature of the State of Wisconsin at the regular session of 1907 agreeing to a proposed amendment to the constitution of Wisconsin granting the right of franchise to those aliens only who declared their intention prior to December 1, 1908, and terminating that right on the 1st day of December, 1912.

At the head of the list, as regards utilizing the expeditious method of making voters, stands the State of Indiana, in which during the "off year" of 1908 but 772 declarations were filed, as compared with 7,669 during the year 1909. The natural inference as to the cause of such a sporadic desire to take the initial step toward acquiring citizenship becomes irresistible, where it is shown, by inspection of the table exhibiting the number of declarations filed during the year throughout the country, that in the first quarter of the fiscal year 1909 (beginning July 1, 1908) 660 declarations were made in Indiana; in the second quarter (October, November, and December), 6,697 aliens declared their intention, while in the third quarter, after the elections were over, but 71 filed preliminary papers.

As bearing upon the continuance of this condition, so far as declarations of intention made prior to June 29, 1906, are concerned, some of the courts have held that no declaration is valid after the expiration of seven years from the date on which it was made. Whether the person who holds a declaration which has through lapse of time lost its value as a preliminary step toward acquiring citizenship is thereby deprived of a privilege granted to him by the constitution and laws of a State because he has signified his purpose to be a citizen is, however, an entirely distinct question.

FIELD SERVICE.

With the close of the fiscal year was terminated an anomalous and highly unsatisfactory arrangement of the field officers. They were employed by the Department of Justice as adjuncts of the offices of the United States district attorneys and as such were, of course, nominally subject alone to the control of that Department. That Department was charged with no duties by the naturalization act of June 29, 1906, except under that section which imposes upon its United States attorneys the duty of instituting proceedings to cancel illegally or fraudulently obtained certificates of naturalization. All the administrative machinery of the act was expressly placed under the control of the Secretary of Commerce and Labor, as necessarily were also the power and duty of making all provisional constructions of the law, pending ultimate interpretation by the courts. Thus the records and administrative machinery in Washington were under this Department, and the agents by which the law was to be made effective "in the field" were under the Department of Justice.

Notwithstanding the employment of the examiners by that Department this office necessarily supervised the work of those agents and "advised" them regarding their duties, because the records used as a basis therefor did not exist in any other office, but it could not enforce its views upon officers not entirely subject to its direction and control, nor could it in many instances induce them willingly to stand before the courts for its provisional constructions of the act. A very little reflection will suffice without argument to show the confusion and misdirected and ineffective effort that resulted from this arrangement. It naturally follows that the transfer of the examiners to this Department, by unifying the entire naturalization service, central and dispersed, under one executive control, must facilitate the promptness and the effectiveness of the field work, dispel the confusion and uncertainty as to the line of demarcation between the appropriate functions of the two departments and render possible an economical employment of the force of examiners.

As some uncertainty seems to have prevailed in regard to the work of the examiners, it is as well to say that they are not, even in a very restricted sense, detectives or "sleuths." They are not hunting for fraud. They are simply preparing the evidence on which naturalization petitions are to be heard and determined by the courts. Such fraud as they incidentally to this work discover is reported, with the evidence, to the appropriate United States attorney. At this point the duty of this Department ends and the duty of the Department of Justice begins. The line can easily and plainly be drawn.

Those who look among the causes of denials of petitions for a recital of crimes and misdemeanors misconceive the duty and work of the examiners, and mistake the tabulated reports of work done by the civil courts, for the dimensions of the dockets of the criminal courts have no relation to the usefulness of the examiners. There seems also to be some misconception as to the dimensions of the work of the field force. It is large and important. It is not, however, vast and costly. There is no reason to believe that it will ever cost nearly so much to supervise the admission of aliens to citizenship as it now costs to supervise their physical landing on our soil, nor will it ever be necessary to have anything like the number of examiners that is needed of immigrant inspectors. And yet, it must be conceded, the interests of American institutions are more nearly affected by the granting of citizenship than by the permission to land on our soil.

In the large cities where most of the petitions for naturalization are filed, the simple device of advising petitioners and their witnesses, immediately after the work before the clerks of courts is completed, to call for examination at the office of the chief examiner entails no extra expense or hardship upon the former and makes the work of examiners both rapid and effective. At such points they can dispose of as many cases as the clerks of courts, as comparatively few of the cases require further investigation than that made in the examiners' offices.

While it is more difficult, where the petitioners are spread over a wide territory and resort to courts remote from the station of an examiner there is the compensating advantage that the character of such petitioners gives reasonable assurance that there is comparatively less risk of admitting unworthy aliens to citizenship than there is in the great cities, where the wiles of designing persons and the conditions of existence are such as to tempt a resort to fraud.

In addition to directing the work of this field force, it was necessary to exercise a close supervision over the work of the clerks of courts exercising naturalization jurisdiction in the execution by them of declarations, petitions, and certificates of naturalization, their compliance with the requirements of the law in forwarding naturalization papers, accounting for the fees collected by them in naturalization proceedings, furnishing the copies of orders of courts prescribed by law, and obtaining an observance by them of the requirements of the regulations framed to render effective the provisions of the law; thus bringing directly under the supervision of this office a field force of 2,450 officers actively engaged in the discharge of the responsibilities imposed upon this division by the act of June 29, 1906. To accomplish this supervision with the small force provided it has been necessary to systematize carefully the work of this office and to require a maximum amount of productive work of each of the members of the clerical force.

FINANCIAL STATEMENT.

The moneys collected by this division, as naturalization fees, authorized by the act of June 29, 1906, and forwarded to the disbursing clerk of the Department of Commerce and Labor for deposit in the Treasury of the United States, in accordance with the provisions of section 13 of the act referred to were as follows:

First quarter	$58, 259. 40
Second quarter	42, 285. 03
Third quarter	45, 945. 85
Fourth quarter	40, 091. 00
Total	186. 581. 28

The appropriation for the salaries of the Division of Naturalization was $38,960, of which $38,789.42, were expended. In addition to this there were expended out of the contingent fund of the Department $5,639.03 for stationery, supplies, and office equipment. Thus, it is seen that the amount of receipts under the act of June 29, 1906, which was deposited, account of miscellaneous receipts, in the Treasury was $142,152.83, in excess of the cost of administration under this Department.

RECOMMENDATIONS.

The two principal recommendations made in former reports were acted upon by the last Congress, one favorably to the view held by the division; the other unfavorably. The former was in relation to the transfer of the examiners in the field from the Department of Justice to the Department of Commerce and Labor. This step was the most conducive to good administration, and therefore the most important.

The other was in relation to the fees of clerks of courts, which the division recommended should be increased. The matter was fully discussed in the House of Representatives upon a consideration of a disagreement by the House conferees to a provision in a Senate bill making such an increase, and voted down. The question is, therefore, for the present settled. Some arrangement should, however, be made better than that contained in the sundry civil appropriation bill for allowing clerks who have collected more than $6,000 in any fiscal year to employ such additional clerical assistants as may be necessary to discharge promptly the naturalization business presented to them, provided such business is not in excess of the capacity of the court to dispose of properly with a due regard to its other business.

The method by which this is to be accomplished is not entirely clear, especially as it is intimated elsewhere in this report that, although much dissatisfaction has been occasioned by the insufficiency of the number of assistants in some clerks' offices to dispatch promptly more than a small proportion of the amount of business offered at such offices, a material increase in the number of papers filed would simply result in overloading the dockets and would occasion the same delay and expense in securing a judicial hearing as is now incurred in obtaining a chance to file the necessary papers with the clerks of the courts.

The division again recommends appropriate legislation to determine definitely which provisions of the act of June 29, 1906, apply to those aliens referred to in sections 2166 and 2174 of the Revised Statutes and the act of July 26, 1894, and what of such provisions do not apply to them. This legislation should be made sufficiently comprehensive to remove all doubt, also, as to what is required of all other aliens who claim exemptions, under certain laws, from some of the conditions with which other persons seeking citizenship must comply.

As regards the recommendation heretofore submitted, that provision be made by express legislation for appeals in all naturalization cases, it is gratifying to report that the United States circuit courts of appeal are uniformly entertaining applications for review of decisions rendered in such cases by federal courts, and that as to authority of said courts to review similar judgments of state courts a United States circuit court of appeals has certified the question to the United States Supreme Court for determination at the October term of the current year.

Respectfully,
RICHD. K. CAMPBELL,
Chief, Division of Naturalization.

To Hon. DANL. J. KEEFE,
Commissioner-General of Immigration.

APPENDIX III.

REPORT OF THE CHIEF OF THE DIVISION OF INFORMATION.

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF IMMIGRATION AND NATURALIZATION,
DIVISION OF INFORMATION,
Washington, July 1, 1909.

SIR: There is herewith submitted the report of the Division of Information for the fiscal year ended June 30, 1909.

Tables, which explain part of the work of the division, are submitted. Tables I and II are for the time between July 1, 1907, the date of the organization of the division, and June 30, 1909. Table III is for the twelve months ended June 30, 1909.

Table I shows that a distribution of 5,008 persons was effected by the division for the fifteen months ended June 30, 1909. The work of distribution did not begin until about the first of April, 1908.

From this number deduct the 840 distributed prior to June 30, 1908, and it will be seen that 4,168 were distributed to specific employment during the last fiscal year. Of the total number, 2,565 were distributed to agricultural communities, where they secured permanent employment on farms. Not all of these should be classed as farm laborers, for many of them occupy positions of trust, having charge of dairies, stables, or of others employed on farms.

There were 1,215 common laborers and 269 domestics directed to permanent places of employment. A majority of the domestics were wives of men who availed themselves of information given them by the division.

The 192 children were of tender years who accompanied their parents.

It will be seen that 4,241 persons not classed as mechanics or skilled workmen were directly benefited by information furnished by the division.

Of the 168 designated as miners in Table I, it is probable that many were employed as laborers in or about the mines. It is not easy to determine how many, for all who seek information do not state what their qualifications really are; some profess a knowledge they do not possess, others are reticent or doubtful as to their own qualifications or abilities, and this does not become known until a test is applied on being employed.

This leaves 599 of those distributed by the Division of Information to be divided among 72 occupations, many of which are not what is commonly known as skilled trades, as, for instance, the 68 woodsmen and the 31 settlers, the latter representing a class that, it is hoped, may grow in numbers as the opportunities for such become better known to home seekers.

Of those classed as skilled workers, outside of those referred to, over 50 per cent went to small towns or villages and are now doing business for themselves. The aim of the division all along has been to divert the stream of immigration toward the land or to small towns and away from the large cities.

In no instance was a strike, lockout, or other labor disturbance in progress or contemplated at a time when any of those directed by the division went forward. It is apparent also that great care was exercised in the selection of those who applied for information and were directed to opportunities, for very few complaints have been filed with the division and these have been more than offset by commendatory letters where employers have been satisfied and thanked the division for its work in directing the labor where it was needed.

The records of the division show that but 20 of those directed to employment failed to reach proper destination. Of this number the cost of transportation was advanced by the employer in 11 cases. Five of the 20 paid their own transportation expenses, and the cost of transportation in the other 4 cases was advanced by various charitable organizations. Of the 11 cases in which the employer advanced the cost of transportation, disappointment was avoided in 7 of them by directing other men, who paid their own transportation.

In 2 of the 11 cases the employers reported that the men arrived, but in one instance that he left the railroad station next day without proceeding to the employer's farm or notifying him of his arrival; in the other the employee undoubtedly arrived at or near the proper destination and went to work for another employer in that vicinity.

Of the aforementioned 20 who went astray en route, 11 were destined to points west of Chicago, which necessitated a transfer from one railroad station to another at that point. This emphasizes the importance of adopting some system of regulating the passage through that city of aliens destined to points beyond.

Table II is of value in that it shows what a wide field of activity has been covered by the Division of Information. Seekers for information have been directed to and have found employment in 40 States and 1 Territory. No aliens or others have secured employment, so far as known, through the efforts of the division in Florida, Idaho, Louisiana, Nevada, Utah, Washington, Wyoming, or the Territory of Arizona, although information regarding the resources of all of them have been given to applicants.

The fact that 2,202 of those applying for information located in New York State and 676 in New Jersey does not indicate that the inducements offered in those States were greater than those of other States. The lack of means to defray expenses of transportation was, no doubt, a prime factor in determining many applicants to avail themselves of opportunities at points within those States to which the cost of transportation was not beyond their means.

It must be borne in mind that the work of the Division of Information is yet in its initial stage; that its purpose and scope are just beginning to be understood. All of its work has been done in the face of adverse conditions. Actual distribution did not begin until nine months after the division began to collect information, and then in the midst of a financial and industrial depression the evil effects of which are but now being hidden by the smoke from furnaces, factories, and workshops that are again renewing the activities so suddenly paralyzed in October, 1907.

Thousands of able, healthy, willing workers have anxiously scanned the records of opportunities presented to them by the Division of Information, only to turn away disappointed, for the most alluring of them lay at points hopelessly beyond their grasp because of financial inability to reach destination. Even when the panic was at its height, the Division of Information could have directed thousands of people to places where they could secure employment on the land, were it not for the lack of means on the part of applicants to defray traveling expenses.

Forty-five nationalities contributed to the number of those benefited by the work of the division. Many of those applying for help express a preference for certain nationalities or races. The division has therefore included in the list of questions submitted to prospective employers one which gives them the opportunity to state whether they have a choice in the matter.

Among aliens, those coming from northern Europe are preferred by perhaps a majority of applicants for farm labor. As the value of the southern European as a fruit grower becomes known, the demand for his services grows in volume.

TABLE I.—DISTRIBUTION OF ALIENS APPLYING TO THE DIVISION OF INFORMATION, JULY 1, 1907, TO JUNE 30, 1909, BY STATES AND TERRITORIES AND BY OCCUPATIONS.

State or Territory.	Ax factory laborers.	Bakers.	Baker helpers.	Blacksmiths.	Boarding-house keepers.	Bowling-alley pin boys.	Bricklayers.	Butcher.	Cabin boy.	Cabinetmakers.	Carpenters.	Carpenter helper.	Children (unemployed).a	Cigar making.	Clerk.	Deck hand.	Domestics.b	Donkey men.	Dressmaker.	Drillers.	Dyer helpers.	Electricians.	Factory work.	Farm work.	File cutter.	Firemen.	Fireman helper.
Alabama				1							4		1				1							2			
Arkansas		2											18											15			
California																								3			
Colorado																								2			
Connecticut													2	1			8							62		2	
Delaware													6											24			
District of Columbia																	1										
Georgia													6				8							26			
Illinois				1							1		16				4							121			
Indiana																							1	12			
Iowa													17				4					1		60			
Kansas								1			1		1				1							15			
Kentucky					1								8				7							24			
Maine																	4							14			
Maryland				1									2				1							108			
Massachusetts																								20			
Michigan										1			6				3						14	19			
Minnesota																								52			
Mississippi													14											39			
Missouri													1				1							23			
Montana																								5			
Nebraska																								12			
New Hampshire													3				1							8			
New Jersey		1	1		1						14	1	7				39					1	1	512			
New York		1	1	2	1	16			1	1	13		48		1	1	145	2	1	15	4			791	1	1	1
North Carolina																								1			
North Dakota																								12			
Ohio													8				9							53			
Oklahoma				2			2			1	9		1				2							14			
Oregon																								1			
Pennsylvania				1									4	42			8							134			
Rhode Island																								7			
South Carolina										4			7											22			
South Dakota													1				2							6			
Tennessee																								1			
Texas																	1						16	18			
Vermont													9				13							271			

Virginia				2							1		4				5							41			
West Virginia	29				2								2											1			
Wisconsin																	1							14			
Total	29	4	2	10	5	16	2	1	1	7	43	1	192	43	1	1	269	2	1	15	4	2	32	2,565	1	3	1

State or Territory.	Florist.	Florist apprentices.	Furrier apprentice.	Gardeners.	Hairbrush work.	Horticulturists.	Hospital attendants.	Hostlers.	Interpreter.	Ironwork.	Janitors.	Laborers (common).	Laundry work.	Leather work.	Locksmith.	Lumbermen.	Machinists.	Machinist helpers.	Medical attendant.	Miners.	Mine work.	Molder.	Novelty works.	Nurse.	Painters.	Painter helpers.
Alabama												3														
Connecticut												44														
Georgia				1								6														
Illinois												2								1		1				
Indiana										1																
Iowa												1		1												
Kentucky												3								30	3					
Maine				3																						
Maryland				5								13														
Massachusetts												1														
Michigan												26														
Minnesota				1								3														
Missouri												2														
Montana						2																				
New Jersey		7		5				2				54								7					1	3
New York	1		1	13	6		2	13	1		4	960	1				3	2	1				1	1	8	
Ohio												7														
Oklahoma												7			1		1									
Pennsylvania												20								10						
Texas												57								6						
Vermont				1				1				2					1									
Virginia																2										
West Virginia																				114						
Wisconsin												4														
Total	1	7	1	29	6	2	2	16	1	1	4	1,215	1	1	1	2	5	2	1	168	3	1	1	1	9	3

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[a] The designation "children" has reference to those who merely accompany the parents and are too young to work.

[b] It should be explained that a great majority of the 269 persons here designated as "domestics" were wives who secured work as domestics in the family of the employer to whom the husband was directed.

TABLE I.—DISTRIBUTION OF ALIENS APPLYING TO THE DIVISION OF INFORMATION, JULY 1, 1907, TO JUNE 30, 1909, BY STATES AND TERRITORIES AND BY OCCUPATIONS—Continued.

State or Territory.	Paper hanger.	Plasterer.	Porters.	Ranchman.	Sailors.	Sawmill work.	Seamstresses.	Settlers.	Shipwright apprentice.	Shoemakers.	Soldier.	Tailors.	Teamsters.	Textile work.	Tinners.	Tinner helpers.	Tool maker.	Upholsterer.	Waiters.	Watchman.	Weavers.	Wives (unemployed).	Woodsmen.	Woodworker.	Total.
Alabama																									12
Arkansas								14														3			52
California																									3
Colorado																									2
Connecticut																				1		2			122
Delaware																						1			31
District of Columbia																									1
Georgia																									47
Illinois												2										3			152
Indiana																									14
Iowa																						3			87
Kansas													1												20
Kentucky																						2			78
Maine																									21
Maryland														1							1	3			135
Massachusetts												1													22
Michigan																						2			71
Minnesota																									56
Mississippi						2							2										7		64
Missouri																									27
Montana																									7
Nebraska								5																	17
New Hampshire																									12
New Jersey	1	1	1			2				1			1						2		3	1	6		676
New Mexico				1																					1
New York			13		14		5		1	1	1	1	14	8	2	2	1	1	5		8	5	55		2,202
North Carolina								1																	2
North Dakota																									12
Ohio																									77
Oklahoma																								1	41
Oregon																									1
Pennsylvania						1																			220
Rhode Island																									7
South Carolina								8						1								1			43
South Dakota																									9
Tennessee																									1

Texas						37		3																138
Vermont			1										1											300
Virginia															1							1		57
West Virginia																						1		149
Wisconsin																								19
Total	1	1	15	1	14	42	5	31	1	2	1	4	19	10	3	2	1	1	7	1	12	28	68	1	5,008

TABLE II.—DISTRIBUTION OF ALIENS APPLYING TO THE DIVISION OF INFORMATION, JULY 1, 1907, TO JUNE 30, 1909, BY STATES AND TERRITORIES, AND BY RACES OR PEOPLES.

State or Territory.	African.	Australian.	Bohemian.	Bosnian.	Bulgarian.	Canadian.	Corean.	Croatian.	Cuban.	Danish.	Dutch.	East Indian.	English.	Finnish.	French.	German.	Greek.	Hebrew.	Irish.	Italian.	Lettish.	Lithuanian.	Magyar.
Alabama										1	1			1		2							
Arkansas	1										8		1	3		10				7			
California																3							
Colorado																1							
Connecticut		3								5				25		11		1	1		1	1	
Delaware										1			1			2		1	2			2	
Georgia						1				5			2			20							
Illinois					5					9				1		84			2	2		1	2
Indiana																11							
Iowa			2							1	1		1	1		34			1				
Kansas			1										1			5							
Kentucky										2			1	1		22							1
Maine								1		1						7							
Maryland			2								5		1	2		35		3		2		1	3
Massachusetts					1						1			1		3							
Michigan											2					15	4				2		
Minnesota			1							5				1		21	3						
Mississippi										1						11		1	1		1	3	
Missouri													2			17							
Montana										2			1			3							
Nebraska										4													
New Hampshire						4				2				3	1								
New Jersey			5			1	1	1	1	38	2	1	13	23		127	1	7	18	5	3	16	8
New Mexico																1							
New York	2		4	2	12	1	2	10		77	13	1	22	51	5	247	26	19	36	222	18	36	36
North Carolina													1			1							
North Dakota																9							
Ohio										5	3		1	1		23		1					
Oklahoma													1	1		10							
Pennsylvania			2					4		10	1		3	2	1	68		2	2	2		1	3
Rhode Island										1				1							1		
South Carolina										1	1					10				16			
South Dakota																3							
Texas					79					2						5	3	1					6
Vermont			1			2		6		27	6		4	9		27		4	8		2	4	1
Vriginia			5		2					1			1			6		1	2				
West Virginia			2					1					2		1	19	35						5
Wisconsin										1						6							
Total	3	3	25	2	99	9	3	23	1	202	44	2	59	127	8	879	72	41	73	256	28	65	65

State or Territory.	Mexican.	Montenegrin.	Moor.	Norwegian.	Polish.	Porto Rican.	Portuguese.	Roumanian.	Russian.	Ruthenian.	Scotch.	Servian.	Slovak.	Slovenian.	South American.	Spanish.	Swede.	Swiss.	Turkish.	U. S. citizen.	Welsh.	West Indian.	Total.
Alabama					3						1						1			2			12
Arkansas																	2	6		14			52
California																							3
Colorado																				1			2
Connecticut				11	24	1			2	5			1				23			7			122
Delaware				1	3				9								2			7			31
District of Columbia																				1			1
Georgia					15				4														47
Illinois				1	5	2			3								15	2		18			152
Indiana					2															1			14
Iowa				6	2				3								17			18			87
Kansas				4													7			2			20
Kentucky				2	22				12	1							2	3		9			78
Maine				3	1				1		1						5			1			21
Maryland				1	18			1	18	1	1						2			39			135
Massachusetts				2	6	1			1				2				1			3			22
Michigan					17				6	5							3			17			71
Minnesota				11	7												6			1			56
Mississippi					22				6	7								7		4			64
Missouri					2												2			4			27
Montana					1																		7
Nebraska				2	2				4								4			1			17
New Hampshire																				2			12
New Jersey				29	175	2			43	13			6	1	1	3	52	6		73	1		676
New Mexico																							1
New York	1	14		94	534	3	2	4	259	82	2	5	9			4	174	10	1	160		2	2,202
North Carolina																							2
North Dakota																	1			2			12
Ohio				1	5				2								4	1		30			77
Oklahoma				2	2				6	11			3				2			3			41
Oregon																		1					1
Pennsylvania				11	45				6	13	2		3				18	1		20			220
Rhode Island																	2			2			7
South Carolina					3				2								2			8			43
South Dakota				1	2					1										2			9
Tennessee																				1			1
Texas					1			7	15			19											138
Vermont				34	51	3		1	6	5			3				56	5		35			300
Virginia				1	8				5								1			24			57
West Virginia			1		50				13	4	1	1	3			9				2			149
Wisconsin				4					2								2	1		3			19
Total	1	14	1	221	1,028	12	2	13	428	148	8	25	30	1	1	16	406	43	1	517	1	2	5,008

TABLE III.—APPLICANTS APPLYING TO THE DIVISION OF INFORMATION FOR INFORMATION, FISCAL YEAR ENDED JUNE 30, 1909, BY RACES OR PEOPLES AND BY OCCUPATIONS.

Race or people.	Architect.	Bakers.	Barbers.	Blacksmiths.	Bookbinders.	Brewers.	Carpenters and cabinetmakers.	Clerks.	Drivers, coachmen, and teamsters.	Electricians.	Engineer (civil).	Engineers (mechanical).	Engravers.	Factory hands.	Farmers.	Farm laborers.	Firemen.	Furriers and fur workers.
Armenian														4				
Australian																11		
Bohemian		1		3			6	3	1			1		8	1	65		
Bulgarian														2		120		
Canadian				5			2									22		
Croatian								1								6		
Cuban														15		8		
Dalmatian				2						3								
Danish		5		60		2	120	26	62	13		1		96		561	51	
Dutch			1	11			16	16	2	2				8		160		
East Indian																4		
English				4	3		14	14	7	2				2		122	11	
Finnish				40			105	33	7	11				52		355	27	
Flemish							5		1							9	2	
French				7			13	5	6	2				12		76	3	
German		29	4	63	6	2	140	126	79	18		6		182	2	1,525	43	
Greek				13			33	3	8	5				165		51	41	
Hebrew		9	1	10	3		31	38	22	9		2	1	242		114	7	2
Herzegovinian								3						6		4		
Irish				2			19	9	28					35		216	2	
Italian		1	2	15	4		34	11		9		7		128		203	7	
Lettish							1							2		13		
Lithuanian							9	2						17		77		
Magyar		2		4			23	1	7					6		189	2	
Mexican														22		15		
Montenegrin											1	1					3	
Norwegian		13	5	45			163	18	79	18				125		676	47	
Polish		10	3	64	7		146	11	42	1		4		337		1,398	4	1
Porto Rican							2	2						24		37		
Portuguese														16		10		
Roumanian				2			6	5				1		18		74		
Russian		1		13			29		16			2		127		468		1
Ruthenian							10		5					83		174		
Scotch									1			1				29	1	
Servian														3		2		
Slovak				1			3		3					53		61		

Slovenian																1		
Spanish							7		3					64		20	6	
South American			4				7		4					4				
Swedish		5	1	84	15	1	195	52	106	20		1		122		843	49	
Swiss				2			2	3	6					12		105	2	
Turkish														19		3		
United States born	1	2		26			64	46	44	10		11	1	92	3	449	28	
United States born (negroes)									2			2				12		
United States naturalized citizens				23			21	13	25			4		69		171	25	
Welsh																11		
Total	1	78	21	499	38	5	1,226	441	566	123	1	44	2	2,172	6	8,470	361	4

TABLE III.—APPLICANTS APPLYING TO THE DIVISION OF INFORMATION FOR INFORMATION, FISCAL YEAR ENDED JUNE 30, 1909, BY RACES OR PEOPLES AND BY OCCUPATIONS—Continued.

Race or people.	Gardeners.	Hat and cap makers.	Hotel porters and other help.	Iron and steel workers.	Jewelers and watchmakers.	Laborers.	Literary and scientific persons.	Locksmiths.	Machinists.	Mariners.	Masons.	Merchants.	Metal workers, other than iron and steel.	Millers.	Miners.	Molders.	Musicians.	Painters and glaziers.
Armenian						11			3									
Australian															1			
Bohemian	2		10	1		112			2		1				4			
Bosnian		1																
Bulgarian				1		48			3						2			
Canadian	4		4			5									6			
Croatian						37									4			
Cuban						13			2									
Dalmatian						6				1	5				3			
Danish	32		33			288			85	9	2		1		16			9
Dutch	3		13			86			8	2			1		6			7
English	3		3			70		1	15	1	2				5			4
Finnish	15		35			298			53		5				20			14
Flemish						12												
French	1		3			93		2	16	1								
German	88		94	9	2	454		5	144	10	9	22		3	96	2	2	12
Greek			68			486		9	42						135			3
Hebrew	10	5	14			87		2	33		2		4		6			10
Herzegovinian						1												
Hindoo			3															
Irish	14		13			164			1						10	3		
Italian	1		1			680			30		21				48	6		
Japanese			2															
Lettish			5			19												
Lithuanian	2					62			7						9			
Magyar	6	5	4			116			18		1				22			5
Mexican						50												
Montenegrin	2																	
Moor															1			
Norwegian	19		48			436			75	3	2				31	5		13
Polish	59		95	13		1,468	1	7	178	4			4	2	197	7		24
Porto Rican			3			17												
Portuguese			1			17			6									
Roumanian	2		8			40			20									
Russian	7		25	3		818			30						75	4		
Ruthenian	15		18			213			14						35		1	

Scotch			1			19							1		2			
Servian						26												
Slovak	3		5			94			3						48			
Slovenian	4					3												
Spanish			11			115			8						32			
South American			2			9			5						5			
Swedish	67		45			507		2	133	16					64	3		20
Swiss	2					26			2									
Syrian			1			2												
Turkish						43			4						7			
United States born	9	1	48	23	2	422			64	4	2		3		20			23
United States born (negroes)			17	2		20			1						4			
United States naturalized citizens	8		4	4		152			20		4				7			5
Total	378	12	637	56	4	7,645	1	28	1,025	51	56	22	14	5	921	30	3	149

TABLE III.—APPLICANTS APPLYING TO THE DIVISION OF INFORMATION FOR INFORMATION, FISCAL YEAR ENDED JUNE 30, 1909, BY RACES OR PEOPLES AND BY OCCUPATIONS—Continued.

Race or people.	Plasterers.	Plumbers and pipe fitters.	Printers.	Saddlers and harness makers.	Servants.	Shipwrights and joiners.	Shoemakers.	Stonecutters and drillers.	Tailors.	Tanners and curriers.	Tinners.	Tobacco workers.	Upholsterers.	Weavers, spinners, carders, etc.	Wheelwrights.	Wood workers, turners, etc.	All others.	Total.
Armenian					1													19
Australian																		12
Bohemian				3	3		2		4		1					1	14	249
Bosnian					2													3
Bulgarian																		176
Canadian																		48
Chinese					2													2
Croatian					6													54
Cuban					5													43
Dalmatian					2													22
Danish		2			103								1					1,578
Dutch		1	1		16								1					361
East Indian																		4
English		3	1		19		1											307
Finnish					57													1,127
Flemish																		29
French					22						1							263
German		3	5	7	142		3	1	2	2	5		1	3	1	3	21	3,376
Greek					35													1,097
Hebrew		5	5	11	8		5	5	10		4	3	1	11	7	1	6	746
Herzegovinian											1							15
Hindoo																		3
Irish					9													525
Italian					39		1											1,248
Japanese					1													8
Lettish																		40
Lithuanian					10												6	201
Magyar					28				4					1	3		4	451
Mexican					3													90
Montenegrin					4													11
Moor																		1
Norwegian					118													1,939
Polish					98		3		3				1	2	5	2	12	4,213
Porto Rican					7													92
Portuguese																		50
Roumanian					2													178

Russian					8		1		1								9	1,688
Ruthenian					9												3	580
Scotch					1						1					2		59
Servian					2													33
Slovak					1													275
Slovenian																		8
Spanish					14													280
South American																		40
Swedish		1			149				3		7					6		2,517
Swiss					8													170
Syrian																		3
Turkish					5													81
United States born	3	36	16		56	4	4	5	9		4	2	1		1	1	7	1,547
United States born (negroes)		1			4													65
United States naturalized citizens		3			34						1			1				594
Welsh																		11
Total	3	55	28	21	1,033	4	20	11	36	2	25	5	6	18	17	16	82	26,477

Note.—The above table is a compilation of the total number of persons who have applied personally for information at the various branch offices of the Division of Information. These applicants for information are listed but once, though they may return to the office several times thereafter for additional or other information. The branch offices whose reports are consolidated in the above table are New York, N. Y., Baltimore, Md., and Galveston, Tex. Of the total number of applicants for information, 24,602 persons applied at the New York branch office during the entire fiscal year. The Baltimore office has been in operation since August 15, 1908, the total number of applicants since that date being 1,714. The office at Galveston did not begin operations until April 1, 1909, since which date the number of applicants has been 161, or a total for the three offices, as shown by the table, of 26,477 applicants for information.

A total of 26,477 applicants for information were served at the branch offices of the division during the fiscal year ended June 30, 1909. Care was exercised in noting these applicants so as to avoid duplication. While the same person may have made inquiry on several different occasions, he was listed but once. The figures given do not and can not show the full number benefited by receipt of information, for many applicants represented groups ranging from 5 to 50. The division has no means of ascertaining how many acted on the information received.

When an applicant makes his selection and is specifically directed to an opportunity, he is provided with a note of introduction to the prospective employer. This serves to identify him, and the employer is requested to notify the division of his arrival. In cases where applicants call at the branch offices of the division, look over the opportunities presented, make notes of the same, and take the addresses of prospective employers, it is impossible for the division to ascertain how many of these are employed, since the employers are not requested to notify the division of their arrival, and unless conditions are not favorable to either party no information will reach the division concerning the matter.

APPLICATIONS FOR INFORMATION.

Applications have been received from 2,823 skilled workers, professional men, journalists, and scientists for aid in securing employment, but the work of the division having been principally directed to diverting the unemployed to opportunities on the land, little assistance could be rendered in these cases.

MAIL.

Letters prepared in the division exclusive of duplicates	4,729
Postal cards mailed to Southern States	776,016
Postal cards mailed to Middle West	1,129,950
Circular letters replying to applications for domestics	693
Circular letters forwarding blank forms	14,326

In a majority of instances when applications are received, it happens that replies to certain questions are omitted, and the division is obliged to call the attention of the writers to the omissions, which is done by means of a circular prepared for that purpose. Invariably the filling in of this form requires such preparation of original matter as to constitute a letter in itself.

Each postal card sent out contained a suggestion to the recipient to lay it aside for future use in case no immediate necessity for help existed. That this suggestion has been acted on is evidenced by the fact that replies are now coming in from postal-card inquiries sent out a year ago.

CHARGE OF FURNISHING STRIKE BREAKERS.

A report gained circulation during the year that the Division of Information was furnishing strike breakers to cigar-manufacturing firms in Pennsylvania. The facts, briefly stated, are as follows: On October 23, 1908, Emanuel Cadilak, of 371 East Seventy-second street, New York, called at the New York branch of the division, No. 17 Pearl street, and made the statement that 400 cigar workers were wanted by the Harrisburg Cigar Company, at Harrisburg, Pa. He stated labor conditions were good, that no strikes or labor troubles were in progress, and that the union scale of wages would be paid. On October 24, when the matter was referred to the division, a letter was sent to the secretary of the American Federation of Labor inquiring whether there was "a strike or lockout in progress or in contemplation, also the union scale of wages for Harrisburg." The letter was answered on the same day by the president of the American Federation of Labor, who, among other things, said he could not "definitely answer either question you propound, but I can state that there are now in the United States fully 25 per cent of the cigar makers of the country unemployed." On receipt of this communication, on October 24, the secretary of Cigar Makers' Local Union No. 244, of Harrisburg, was written to with request that he "inform the division as to the regular union scale of wages which prevails in the cigar-making industry in your district. We would like this in detail, showing wages paid to female as well as male help; also inform us if there is a scarcity of labor existing in the Harrisburg cigar factories at this time." That letter was dated October 24, 1908; an early reply was requested. An answer was received on November 13, 1908, in which the secretary said, "Positively no demand for cigar makers, union or nonunion. * * * Union wages start at $7 per 1,000 to $13 per 1,000." The question referring to strikes or lockouts was not answered.

Through unofficial channels it was learned that no strike was then in progress and that no strike had taken place in recent years in the cigar trade in Harrisburg or vicinity.

On November 5, 1908, Mr. Cadilak again called at 17 Pearl street, and as agent of the Columbia Cigar Company, of Columbia, Pa., made application for 100 girls to go to Columbia to engage in cigar working. He made the same statement concerning labor conditions as in the case of the Harrisburg Cigar Company. It appears that Mr. Cadilak about this time inserted an advertisement in certain New York papers, published in foreign languages, advising those desirous of going to Harrisburg and Columbia to apply at No. 17 Pearl street (the New York branch of the division) for particulars. This was unauthorized by anyone connected with the division, and information concerning it was not received until workmen applied for details as to terms of employment in response to said advertisements. Those who called were given such information as could be gathered. A number, perhaps 30, went to Columbia. When reports were received to the effect that they were not being treated properly, the inspector in charge of information work at 17 Pearl street wired the division on November 20, 1908, as follows: "Advisable to investigate Columbia and Harrisburg cigar factories." Immigrant Inspector John J. Grgurevich, attached to the Baltimore immigrant station, was detailed by the Bureau to investigate conditions in the cigar factories not only in Harrisburg and Columbia, but in adjoining territory as well. Instructions were issued to branch offices of the division not to direct any persons to either Harrisburg or Columbia until after a thorough investigation had been made, but notwithstanding this fact a number of those applying at the New York branch of the division, and who were advised not to go, went to both places.

Mr. Grgurevich made a thorough and painstaking investigation and submitted a full and comprehensive report of his findings. From this report, which is too lengthy to include with this, it was learned that the New York agent of the cigar-manufacturing firms in question had either misrepresented conditions of employment or else failed to impart full information to those whose services he had engaged. Aside from the questions of wages or hours of employment, the Division of Information regarded it as inadvisable to direct the attention of seekers for information to the cigar factories involved.

It was clearly proved that no strike or lockout was in progress or in contemplation or that either had occurred in recent years in that particular part of Pennsylvania.

The report, therefore, that the Division of Information was furnishing strike breakers, or was being used for that purpose even remotely, was without foundation.

BRANCHES OF THE DIVISION.

NEW YORK.

The inspector in charge of information work at New York, in his report for the six months ended June 30, 1909, among other things, said:

> The progress made by this branch of the division may be readily judged by the following figures:
>
> | | |
> |---|---|
> | Total to definite employment, January 1 to June 30, 1908 | 815 |
> | Total to definite employment, July 1 to December 31, 1908 | 1,636 |
> | Total to definite employment, January 1 to June 30, 1909 | 2,176 |
>
> showing an increase of more than 100 per cent for our second half year over the first, of nearly 33 per cent for the third half year of our existence over the second half, and during the third half an increase of nearly 167 per cent over the corresponding six months of the previous year. It must be borne in mind that the demand for labor is always greater during the second than during the first six months of any year.
>
> There has been of late a marked improvement in the quality, though a falling off in number, of men applying for information; the percentage of applicants directed to employment has materially increased for these reasons. Marked appreciation upon the part of employers has been the general rule, but in some cases the applicants have misrepresented their qualifications and have not given satisfaction; on the other hand, in rare instances, employers have not properly stated their requirements and the existing conditions, and employees have been dissatisfied. Cases have come to my notice of where an employer considered the applicant worthless and the same applicant has been praised in the highest terms by another employer. As compared with previous periods, the demand for farm laborers has been abnormal this year, as has also the demand for common laborers. The available supply of qualified men who are willing to accept such employment does not nearly meet even the local demand, where wages are about the same as at more distant points. The applicants naturally select the nearby employment, as the factor of transportation is not so great. There still exists in this vicinity a large body of unemployed men, but they are either not possessed of the proper qualifications to perform manual labor or have not the desire. A large percentage of the unemployed are men of trades or those accustomed to skilled labor. As this division gives information concerning farm labor, common labor, domestics, and settlers only, the class last mentioned are not benefited by its operations. Many skilled mechanics apply and are all referred to such organized bodies as represent the particular trade or calling of the applicant. Every precaution possible is taken to prevent directing men to relieve strikes or other labor troubles. Particular care is exercised to direct no common laborers to work where they may be used to replace labor now employed. The demand for men is so great from sources which require additional help that the restrictions above named do not in any way affect the number directed, as the supply of good men does not meet this demand. How long these conditions will continue can not be predicted, but if the future can be properly judged by the past there is no prospect of immediate relief, as immigration is normally low during the summer months.

The late business depression seems to have had a demoralizing effect on certain classes of laborers. Enforced idleness during this period caused them to resort to every known device to live without employment. Finding it possible to exist, idleness seems to have become a habit, and now that the parks are pleasant and the fields hot, they prefer to enjoy the former, living as best they can. I do not say nor mean to imply that this refers to all or even the major portion of the unemployed, but only to a certain class. It has come to my notice that the greatest enemy the division has is the unscrupulous type of employment agent who deals in foreign-born mankind for his livelihood. These agencies are located in the sections of the city where the foreign element reside and congregate, and they have, to my knowledge, warned immigrants and other aliens not to apply to this branch, giving as a reason that they will be deported by reason of the fact that they are not employed. The agencies have also used their best efforts to influence labor-union men to believe that the work of the division is all wrong. They do not appear openly, as the object in casting reflections upon our work would be too evident to anyone who gives the matter the least thought. Each man directed by the division means $2 or $3 less income for the agent, but the greater loss is the fact that the applicant is liable to secure permanent employment and not return to be sold to some other employer.

BALTIMORE, MD.

One of the staff of the Immigration Service at Baltimore was detailed to act as inspector in charge of information work on July 1, 1908, but suitable quarters were not provided for him until December, 1908.

The offices occupied by said officer in the custom-house are so far removed from the congested center of that city that but few of the unemployed were able to locate it until very recently. The number of applicants for information is increasing as the existence of this branch of the service becomes known to the public.

LETTER OF INSTRUCTIONS TO COMMISSIONERS OF IMMIGRATION AND INSPECTORS IN CHARGE.

On October 14, 1908, the following letter of instructions was issued to all commissioners of immigration and inspectors in charge in the Immigration Service:

To aid the Division of Information of the Bureau of Immigration and Naturalization in promoting a beneficial distribution of arriving aliens and others, as provided by act of Congress, it is directed that active cooperation be extended to the said division and the same measure of attention given to the work of this branch of the service as is accorded other immigration work.

It is directed that one employee, whose name is to be sent to the division as early as possible, be detailed to take charge of information and distribution work at each station; to receive and distribute documents; to keep and mail to the division on proper blanks a comprehensive record of all applicants for information and of those who are directed to employment, and to perform such other duties as circumastnces may require. It is understood that the person so designated shall devote as much of his time, under the direction of his superior officer, as may be necessary, and such designation shall not relieve him for the remainder of his time from the performance of his other duties.

The fullest measure of assistance is expected and required.

Respectfully,

F. H. Larned,
Acting Commissioner-General.

Approved:
Oscar S. Straus,
Secretary.

Complying with instructions contained in said letter, the immigrant inspector in charge at Galveston, Tex., took up the work of imparting information to admitted aliens and others. But little headway was made until toward the close of the last fiscal year when, during the months of May and June, he provided 129 applicants with information which resulted in their securing employment as farm and common laborers in the State of Texas.

NECESSITY FOR OTHER BRANCHES.

An effort was made during the year to establish a branch of the division in Chicago, Ill. It was the intention to secure quarters which would be adequate to the needs of the Immigration Service in Chicago and at the same time provide space for the inspector in charge of information work, who was to be assisted in his duties by the entire immigration force in Chicago. The necessary room could not be found, and in order to initiate the work of distribution in Chicago one of the immigrant inspectors was detailed to act as inspector in charge of information work. He was instructed to investigate and report on a number of offices. One of the places reported on by this officer was approved of and a lease entered into for the balance of the fiscal year. It was deemed inadvisable to renew the lease and as a consequence the branch office in Chicago was not continued.

The Division of Information is of opinion that a branch of the division should be established in Chicago, Ill., and another in St. Louis, Mo. Applications by the thousand are on file from the Western and Southwestern States to which no one can be directed because of lack of funds on the part of those seeking information and the great distance from the Atlantic seaboard.

Chicago and St. Louis have thousands of able, willing men out of employment before whom the division could lay its best opportunities, but there is no way of reaching them or of imparting this information to them.

If during the coming year arrangements can be made to secure office room for the Immigration Service in these two cities commodious enough to give space to a branch of the Division of Information, it will enable this branch of the service to "promote a beneficial distribution of aliens" and others who may be in need of information concerning opportunities to engage in labor on farms, to settle on land, or to engage in profit sharing on the land.

STATE AGENCIES AND BOARDS OF IMMIGRATION.

Correspondence has been had with the Minnesota state board of immigration with a view to effecting such an understanding with that institution as would result in securing its cooperation in the work of distribution. As the fiscal year drew to a close this work was well under way and progressing. Applications for farm laborers coming from Minnesota have been transferred to the state board of immigration of that State, and in turn the division is being notified of opportunities for farm and ordinary laborers in Minnesota. The result so far is satisfactory, and it is expected that effective cooperation will follow the effort to bring the Minnesota state board of immigration and the Division of Information into harmonious working relations.

The New York state department of agriculture, which makes immigration a prominent feature of its work, is now in active cooperation with the Division of Information. The groundwork for this cooperation was laid during the closing months of the fiscal year just closed and is now well under way.

The Kentucky state immigration bureau appointed a representative to visit Ellis Island and the New York branch of the division for the purpose of acquiring a knowledge of distribution. As the fiscal year was drawing to a close the Kentucky state immigration bureau was engaged in establishing an office in Louisville, and the Division of Information has its assurances of willing cooperation in the work of securing information and distributing aliens and others through the State of Kentucky.

Several years ago the legislature of Missouri enacted a statute providing for a state board of immigration, but nothing was done to give it effect until some time during the early part of 1909, when appropriation was made for the maintenance of the board and officers appointed to conduct its affairs. An official of the Missouri state board of immigration visited the Division of Information and its branch office at New York, and said board is now considering the most effective way of cooperating with the division in the work of distribution of aliens and others through Missouri.

ADAPTABILITY OF SETTLERS.

The effort to divert the tide of immigration to agricultural sections of the country is of doubtful value unless conditions are favorable. Soil and climate should be suitable, the latter approximating to that of the home of the immigrant, the former not only fertile but adapted to crops like those the immigrant, if a farmer, was accustomed to raising at home. Many other things enter into the question of a "beneficial distribution" of aliens and others. The person directed by the division must be protected from the greed of those who would possibly take advantage of his ignorance. So far as possible those who do not speak English should be directed to localities where others of their race have settled, for the most heart-breaking experience that can come to a man is to find himself anchored in a place where he can not converse in his mother tongue—or any other—with his neighbors. More aliens have, perhaps, remained in large cities or congested centers or have drifted back to them through this cause than any other.

INTENSIVE FARMING.

Intensive farming is better understood by alien land workers than any other, and for that reason small farms with good transportation facilities and near-by markets are more attractive than large holdings.

The difficulty in securing labor at harvest time to gather in the crops on large farms, which has embarrassed the owners, or managers, and which was seriously acute the last two seasons, has given rise to a movement in favor of cutting up large farms into small holdings, each one capable of supporting a family in comfort and more likely to find a man desirous of owning and operating it himself than one who would prefer working on a large farm for another, or on shares.

That many owners of large holdings are considering the advisability of dividing their acreage into small farms is the information that comes to the division, and it regards this movement as in the right direction and calculated, if carried out, to result favorably to the settler—whether citizen or alien—as well as the country at large.

CONCLUSION.

In conclusion attention is called to the fact that in an endeavor to promote a beneficial distribution of admitted aliens the utmost conservatism has been exercised as regards conduct of the division and its branch offices, selection of men for direction to opportunities, and financial expenditures. Such results as have accrued in the way of distribution are traceable to a genuine demand for laborers in the agricultural sections. Employers were not only ready to cooperate with the division to the extent of submitting applications, but were willing in many instances to advance transportation. The division is satisfied that, apart from ignorance of our language on the part of a large number of immigrants, and the want of transportation money, the principal drawback is the lack of understanding on the part of newcomers regarding our agricultural resources, methods of farming, and advantages to be derived away from the crowded cities. Inducements to settlers on the land constitute a line of inquiry as yet hardly touched upon. It would be instrumental in distribution, but progress in this direction has been retarded in the interest of economy. Propositions of this nature require investigation prior to the direction of anyone, and investigations can not be conducted by correspondence.

The argument that the division induces immigration is without foundation in fact, and no evidence has been produced to support it. Immigration will continue as long as the law permits; those who are here bring others in times of prosperity, and the only question is whether they shall be allowed to settle, as heretofore, in the crowded centers or be directed to opportunities elsewhere. It was with a full realization of the need for distribution that Congress created the Division of Information, and its importance, now that prosperity will swell the tide of immigration, is augmented. Success in large measure can only come by slow growth and experience gained through persistent effort. All things considered, the division has, so far, performed its work well. The good it has done outweighs the criticisms, many of them made in ignorance of facts, and the benefits conferred on employer and employee entitle it to consideration and support.

Respectfully,

T. V. Powderly,
Chief, Division of Information.

To Hon. Danl. J. Keefe,
Commissioner-General of Immigration.

REPORT

OF THE

DIRECTOR OF THE CENSUS

REPORT

OF THE

DIRECTOR OF THE CENSUS.

Department of Commerce and Labor,
Bureau of the Census,
Washington, December 1, 1909.

Sir: I have the honor to submit the following report upon the operations of the Bureau of the Census during the fiscal year ending June 30, 1909, and upon the work now in progress, with special reference to the preparations for the taking of the Thirteenth Decennial Census of the United States. As I did not take the oath of office until June 16, 1909, the work of this Bureau during the greater part of the fiscal year 1908–9 was under the charge of my predecessor in office, Director S. N. D. North.

CURRENT WORK OF THE YEAR.

Up to the end of the fiscal year 1909 the work of the Bureau of the Census was conducted under the permanent census act of March 6, 1902. The act remains in force at the present time, but the functions of the Census Bureau are expanded for the purpose of taking the Thirteenth Census, by virtue of the terms of the act of July 2, 1909.

The permanent Census Bureau has since its creation been organized into five principal divisions, namely, Population, Manufactures, Agriculture, Vital Statistics, and Revision and Results. These divisions are established primarily to correspond to the several principal branches of inquiries of the decennial census, but during the period between the decennial censuses each division has been engaged upon special investigations, most of which by their nature appropriately fell under one division or another, but some of which were assigned to a given division more or less arbitrarily, this policy being deemed more advantageous than to create new divisions to take up such special and temporary inquiries. During the fiscal year 1909, in addition to performing work upon these special investigations, the divisions of Population, Manufactures, Agriculture, and Revision and Results have been engaged largely on preparatory work for the Thirteenth Census. Auxiliary to these five principal divisions is the Geographer's Division, headed by the Geographer, and the Division of Publication, until the end of the fiscal year under the charge of the Chief Clerk, but now under that of an expert chief of division.

During the year ended June 30, 1909, the Bureau of the Census issued 26 publications, of which 10 fall within the class of important reports and the remaining 16 in the class of bulletins and pamphlets. Together they represent a total of 3,970 printed pages. In addition to this the Bureau has performed a large amount of work on the preparation for publication of other reports, some of which have appeared since the close of the year and others are now nearing completion.

DIVISION OF POPULATION.

The Division of Population has been chiefly engaged upon the tabulation of the Cuban census and the completion of the reports on Marriage and Divorce and Religious Bodies. Active work on the Cuban census returns was begun in May, 1908, and was completed by the end of September of the same year—about five months being thus required for this work. The tabulating of the returns was performed by a temporary force paid by the Cuban Government, at a total cost of $42,655.

The report on Marriage and Divorce, which was made in conformity with a joint resolution of Congress approved February 9, 1905, presents statistics for the years from 1887 to 1906, inclusive, thus extending for twenty years the record of marriage and divorce which was compiled for the years 1867 to 1886 by the Commissioner of Labor. Exceptionally complete information is thus available on this important subject for a consecutive period of forty years. The report has been published in two volumes. The volume which contains the general tables, presenting the statistics in full detail, was issued in October, 1908, and was followed by a bulletin briefly discussing and summarizing the results. The other volume, containing a more extended analytical text, a digest of the laws governing marriage and divorce in the United States, and also a presentation of the laws and statistics relative to this subject in twenty foreign countries, is now completed and has just been published.

The census of religious bodies relates to the close of the year 1906 and compiles data regarding the number of religious organizations, church memberships, seating capacity of church edifices, value of church property, etc. These data were collected by means of correspondence, which is necessarily a slow process. The work of collection was completed prior to the close of the fiscal year 1908, but in order to forward the work on the report on Marriage and Divorce the tabulation of the returns was not begun until the following October. The results were summarized in a bulletin and the final report is now in type.

In addition to the foregoing work upon reports, the Division of Population has been engaged upon the indexing and listing of the occupations returned upon the schedules at the Twelfth Census. The result will be a complete classified list of occupations followed in the United States, so far as returned by the enumerators at that census. A full index of these occupations is being prepared on cards, and this will be of great assistance in organizing and carrying through the tabulation of the returns relative to occupations in the Thirteenth Census. The work of transcription to the cards has been finished and the entire work will be completed in season for the Thirteenth Census work.

DIVISION OF MANUFACTURES.

The Division of Manufactures has had charge during the year of the preparation of a considerable number of reports relative to different subjects. It has completed and sent to the printer reports on

Express Business, Electrical Industries in Porto Rico, Telegraph Systems, and Forest Products, all relating to the year 1907; and Cotton Production, Pulp-wood Consumption, Cross-ties Purchased, and Supply and Distribution of Cotton, relating to the year 1908. It has also completed and sent to the printer the manuscript of a Special Report on Industrial Districts.

Cooperative arrangements were made with the Bureau of Fisheries for taking the census of fisheries. Lists of the commercial fisheries, vessels, etc., were prepared from the records of the Bureau of Fisheries. The entire country was laid out in districts and the regular force of the office was assigned to the field work. The canvass was completed and the tabulation well advanced before the close of the fiscal year. Since June 30 preliminary reports have been published for all of the states and for the United States.

Preliminary or summary reports were likewise issued in the form of bulletins or pamphlets on the following subjects: Central Electric Light and Power Stations, Street and Electric Railways, and Telephones, 1907; and Production of Slack Cooperage, Consumption of Tan Bark and Tanning Extracts, Wood Consumed in Veneer Stock, Production of Tight Cooperage Stock, Wood Distillation, Poles Purchased, and Production of Lumber, Lath, and Shingles, 1908. The bulletins relative to Telegraphs, Telephones, Street and Electric Railways, and Central Electric Light and Power Stations constitute parts of the general report on Electric Industries which is made every five years. The first report of this character related to the year 1902. The report relative to Cotton Production, is an annual publication based on returns from cotton ginners, the first report of this character being for the year 1900. The above-mentioned pamphlets relative to Cross-ties, Wood Distillation, and other forest products, constitute parts of the report on Forest Products which is made annually by the Bureau in cooperation with the Forest Service of the Department of Agriculture. The first annual report of this character was made for the year 1906. The Forest Service had collected and published a similar report for the year 1905. The system by which this information is now gathered and presented by the Bureau of the Census, in cooperation with the Forest Service of the Department of Agriculture, results in economy and avoids duplication of the work that would otherwise result.

In compliance with an executive order, the Division of Manufactures compiled statistics in regard to the developed water powers of the United States, for the use of the National Conservation Commission. These statistics relate to the year 1908 and show the number of water wheels and their total horsepower used in manufacturing, mining, and all other industries, including the generation of electricity.

At the request of the Select Committee on Pulp and Paper Investigation of the House of Representatives the Division of Manufactures collected and compiled statistics relative to the production of paper and wood pulp, the price paid by publishers for print paper, and various other items in relation to this industry, which were transmitted to the committee and are included in its report.

At the request of the Committee on Ways and Means of the House of Representatives the Division of Manufactures compiled statistics of manufactures, taken in 1905, arranged in conformity with the paragraphs of the tariff act and compared with the amount of imports and exports. This compilation was published by the committee as a pamphlet and was used extensively in connection with the discussion of the tariff law recently enacted.

At the request of the National Monetary Commission a tabulation was made by the division of the financial statistics of banks throughout the entire country.

The division, finally, has devoted considerable time to preliminary work for the Thirteenth Census. This consisted largely in securing as complete a list as possible of the names and addresses of manufacturers, to be used in connection with the canvass of manufactures.

DIVISION OF AGRICULTURE.

This division has been chiefly concerned with the collection and preparation for publication of the official statistics of cities containing over 30,000 inhabitants. This is an annual publication, the first of which related to the year 1905. This series is, in effect, a continuation of the data contained in Bulletins 20 and 50, which give statistics of cities having a population of over 25,000 inhabitants for the years 1902 and 1903 combined, and for the year 1904, respectively. During the fiscal year the report for the calendar year 1906 was completed and printed, and since the close of the year the data for 1907 have been published in abstract form. This work was intrusted to the Division of Agriculture because that division has little work relative to agriculture to be performed during the years intervening between the regular decennial censuses and is, therefore, in a better position to handle this work than the other divisions. The data are collected by special agents who visit the cities to be canvassed. Their work calls for a high degree of ability and technical knowledge of municipal bookkeeping. Every effort is therefore made to train a special force of employees for this work. As the presentation of the complete results now requires a volume of considerable bulk, it has been deemed desirable that the more general and important results of the investigation should be presented in a brief bulletin that may be given a wider circulation than the detailed report.

DIVISION OF VITAL STATISTICS.

This division has been engaged upon its regular work of compiling the vital statistics for what are known as "registration areas"—that is, states and cities which maintain a registration system upon a sufficiently broad and accurate basis to furnish reliable statistics of this class. It is a matter for congratulation to note that these registration areas are being constantly added to, in no small measure as the result of the activity of the Census Bureau in urging the necessary legislation and in raising the standard of work of state and local registration offices. Thus, the states of Washington, Wisconsin, and Ohio have organized registration systems, based upon recently enacted laws which conform to the model bills approved by the Bureau of the Census and by state registration and sanitary officials. As a result, the first two states named were added to the registration area for 1908 and Ohio has been included for 1909. At the present time the registration areas embrace 55.2 per cent of the total population of continental United States. During 1909 registration laws drafted by the Census Bureau were passed in Delaware, Missouri, and North Carolina, and it is hoped that returns from these states may soon be included in the census reports.

The fiscal year 1909 is notable from the fact that for the first time the effort was made to transcribe and present statistics of births as well as statistics of deaths. The annual presentation of statistics of births in registration areas and the analysis of the operation of the laws under which they are collected should lead to a marked extension and improvement of the registration of births in this country. In this connection it is suggested that it may be well for Congress to authorize the collection of annual statistics of marriages and divorces, instead of having statistics of this character obtained as the result of special investigations made from time to time and covering a series of years. If this is done, the annual reports of the Bureau of the Census will cover the whole field of vital statistics.

Up to the present time the reports of the Bureau relative to vital statistics have been issued annually, the first relating to the year 1900. With the establishment of a system of securing monthly reports from all registration areas, it may be possible to begin a monthly bulletin of mortality by which prompt information will be given to the public relative to statistics of death according to more important causes. Preparations for inaugurating this system are now under way.

The practice of securing monthly returns of deaths from state and city offices enables much more accurate returns to be obtained and makes it possible to insure exact correspondence between the annual compilations of the cities and states and those of the Bureau of the Census. The early receipt of the data has also permitted the annual compilation to be closed at an earlier date than heretofore, and advantage was taken of this fact to prepare an advance summary, known as "Census Bulletin 104, Mortality Statistics, 1908," which contains the general death rates and summarizes data relative to causes of death and occupational mortality.

This bulletin also contains the report of the Census Commission upon the Second Decennial Revision of the International Classification of Causes of Death, held at Paris, July 1 to 3, 1909. The participation of the Bureau of the Census in this revision was in accordance with Public Act 1 of the Sixty-first Congress. The representatives appointed were: Dr. Frank P. Foster, chairman of the committee on nomenclature of the American Medical Association; Dr. Wilmer R. Batt, state registrar of Pennsylvania and chairman of the committee on causes of death of the section on vital statistics of the American Public Health Association; and Dr. Cressy L. Wilbur, chief statistician for vital statistics of the Bureau of the Census. The result has been to make the classification of causes of death, which will be adopted by the Bureau of the Census and by the registration states and cities for the decade beginning January 1, 1910, of much greater service to the people of the United States. It also signalizes the fact that the United States has established a national system of vital statistics and is participating in the International Commission charged with the consideration of important details relating to such work.

The organized registration officials of the United States, cooperating with the Bureau of the Census, have wisely adopted certain rules whose general use will do much to bring about harmony in the vital-statistics reports of the country. These rules are published in the annual report on mortality statistics each year. Among them will be found the very important action taken at the recent meeting held at Richmond, Va., October 19 to 22, 1909, relative to the adoption of the revised United States standard certificate of death. The original standard certificate of death has been used by the Census from 1902 to the present time and the new form will go into effect January 1, 1910. It has already been adopted by the leading registration states, and it provides for more specific statement of age, occupation, and cause of death, so that the mortality statistics beginning with the census year will be of enhanced value.

Another cooperative arrangement which will probably result in great benefit is that recently instituted between the Actuarial Society of America and the Bureau of the Census. A member of the Actuarial Society, Mr. Miles M. Dawson, of New York, has been appointed special agent of the Census, and the society has appointed a special committee to consult with the Bureau of the Census in the preparation of life tables. This committee consists of Mr. Emory McClintock, ex-president of the Actuarial Society and vice-president of the Mutual Life Insurance Company; Mr. Henry Moir, vice-president of the Actuarial Society and associate actuary of the Home Life Insurance Company; Mr. Arthur Hunter, secretary of the Actuarial Society and actuary of the New York Life Insurance Company; Mr. Hiram J. Messenger, actuary of the Travelers Insurance Company; and Mr. John K. Gore, president of the Actuarial Society and actuary of the Prudential Insurance Company, the latter being chairman of the committee. The population data for 1910, in connection with those of the preceding census and the annual reports of mortality now received from a large portion of the United States, will afford the material for the preparation of life tables, which are universally considered the only reliable guide to knowledge of the present mortality and future expectation of life.

Notwithstanding the great advance that has been made by the United States in recent years in respect o the organization, by states and cities, of systems for the registration of births and deaths, an advance to which the Bureau of the Census has contributed not a little, the United States is far behind other countries in respect to this matter. It is believed that no effort should be spared to advance this work, and the Bureau of the Census is doing its utmost to accomplish this end. This means a large amount of work of an educational character and unremitting effort to keep in close touch with state and city officials, the medical profession, and all persons interested in this class of statistics. In this way only can the fundamental basis for accurate vital statistics—that of standardized sources—be laid, and it is a matter for congratulation that marked progress is being made.

DIVISION OF REVISION AND RESULTS.

This division has had as its chief work the critical examination of all reports prepared for publication. During the year it has also assisted in the preparation of the report on Marriage and Divorce, besides doing all the work upon the bulletin by which the more important results of this investigation were given to the public. To this division has been assigned also the collection of statistics relating to the defective, dependent, and delinquent classes in institutions; and it is now engaged in making preliminary arrangements for this work for the census of 1910.

DIVISION OF GEOGRAPHER.

The Geographer's Division during the year has been employed in computing estimates of population of cities and states; preparing illustrations for the special reports and bulletins; and copying and indexing names of heads of families returned at the Census of 1790 for the pamphlets containing these names; the division also prepared the charts and installed the exhibit of the Census Bureau at the Tuberculosis Congress. The most important work of the division during the year was in preparation for the Thirteenth Census; securing maps and detailed information showing the changes that have occurred in the minor civil divisions since the census of 1900; dividing the country into supervisors' districts and enumeration districts; and compiling data upon which to base the rates of compensation of enumerators at the Thirteenth Census.

DIVISION OF PUBLICATION.

The work of the Division of Publication during the past year may be described under two heads: (1) Publication work proper, comprising preparation of copy for the printer, proof reading, job work, indexing, and the keeping of printing records and accounts; (2) productive work not directly related to the regular work of the division, involving the making of tables and other work of a miscellaneous clerical nature. Examples of this second class of work are the preparation of tables and statistical work for the report "A Century of Population Growth, 1790–1900," and the compilation of the Official Register, 1909.

The following is a list of publications of the Bureau of the Census issued since the last annual report of the Director:

Reports.

	Pages.
Marriage and Divorce, Part I	550
Express Business	28
Mortality Statistics, 1907	538
A Century of Population Growth, 1790–1900	312

Special.

Official Register, 1909, Vol. I	822
Official Register, 1909, Vol. II	746

Bulletins.

No. 96.	Marriage and Divorce, 1887–1906	72
97.	Supply and Distribution of Cotton, August 31, 1908	40
98.	Supervisors' Districts, Thirteenth Census	20
99.	Electrical Industries of Porto Rico	30
100.	Cotton Production, 1908	52
101.	Industrial Districts, 1905	82
102.	Telegraph Systems, 1907	48
103.	Religious Bodies	92
104.	Mortality Statistics, 1908	134

Pamphlets.	Pages.
Report on Cotton Ginning	16
Tuberculosis in the United States	68
List of Publications, No. 6, to March 1, 1909	14
The Census and Coordination of Statistics—Reply of the Director of the Census to the Inquiries of the Interdepartmental Statistical Committee	44
Forest Products, 1907:	
No. 3. Production of Slack Cooperage Stock	12
4. Consumption of Tan Bark and Tanning Extracts	10
5. Veneer Stock	10
6. Production of Tight Cooperage Stock	12
7. Wood Distillation	8
8. Cross-ties Purchased	6
9. Poles Purchased	8
10. Forest Products of the United States	122
Forest Products, 1908:	
No. 1. Pulp-wood Consumption	12
2. Lumber, Lath, and Shingles	58
3. Slack Cooperage Stock	12
4. Tan Bark and Tanning Extract	10
6. Tight Cooperage Stock	12
7. Wood Distillation	10
8. Cross-ties Purchased	8
9. Poles Purchased	8

Four hundred and twenty requisitions for printing and binding were made on the Public Printer.

The sale of the pamphlets "Heads of Families of the First Census" was conducted in this division, and the amount received during the fiscal year ended June 30, 1909, was $16,935.71.

Indexes were prepared for the following reports: Manufactures, 1905, Part IV; Statistics of Cities, 1906; Marriage and Divorce, Part I; A Century of Population Growth, 1790–1900; and Mortality Statistics, 1907.

The following statement shows the expenditures from the allotment of appropriation for printing and binding to the credit of the Bureau of the Census with the Public Printer for the fiscal year ended June 30, 1909:

Amount of allotment		$125,000.00
Expenditures for publications	$79,144.21	
Expenditures for blank books, blanks, forms, and miscellaneous printing	13,276.10	
Total expended		92,420.31
Unexpended balance		32,579.69

PRESERVATION OF CENSUS REPORTS.

In addition to the larger editions of census publications printed on ordinary paper, I have directed that there be printed and bound of every future report and bulletin issued by the Bureau of the Census 35 copies on best quality all white new rag paper, to be deposited in the leading libraries of the large cities, so far as the edition permits; and 15 copies on Japan vellum paper, 5 of which are to be retained for the use of the Bureau of the Census and the Department of Commerce and Labor, 2 copies to be deposited in the Congressional Library, and the remainder to be kept to supply further demands, such as exchanges with foreign countries. The volumes so printed on special paper are to have a distinctive and lasting binding in order to distinguish them from the regular edition, thus preventing their loss.

By so printing and binding these special copies a permanence will be secured far greater than that attained even by the earlier publications of the Census, and the actual expenditure will not be large. More recent publications have been printed on "contract" wood-pulp paper, which is far less durable than the crude rag papers used in the earlier publications. It is cheaper than any rag paper, and is used as a matter of economy. The expense of printing the entire edition of census reports and bulletins on paper which would last without deterioration for at least one hundred years would be too great, but by printing and binding a few copies of each report and bulletin upon the most durable paper that can be obtained the main object of permanent preservation will be secured.

OFFICIAL REGISTER.

The Official Register of the United States for 1909, the second issue produced by the Census Bureau, was compiled in the Division of Publication and issued for the first time within the period fixed by law. The same general form was used as in the 1907 edition, the publication being in two volumes—the first containing the legislative, executive, and judicial employees, and the second containing the employees of the postal service. There is an increase of 62 pages over the edition of two years ago. The 1909 publication contains 64,000 more names than did the preceding edition. The aggregate number of names contained in the two volumes for 1909 is 370,065.

SPECIAL REPORT ON POPULATION GROWTH.

During the year to which this report relates the Bureau issued a report entitled "A Century of Population Growth from the First Census of the United States to the Twelfth, 1790–1900." It constitutes one of the most interesting special publications that have appeared since the organization of the permanent Bureau. It was prepared under the immediate direction of Mr. W. S. Rossiter, late chief clerk of the Census Bureau. The volume contains a comparison and analysis of the population statistics of over a century. In particular, it renders available for the first time interesting information relative to the First Census. The results of the First Census were originally published in summarized form in a small volume, and no attempt had ever been made to present the returns of that census in full detail nor had the Census Office ever previously attempted to analyze the returns or compare them with corresponding figures of later censuses.

PREPARATION FOR THE THIRTEENTH CENSUS.

THE THIRTEENTH CENSUS ACT.

"An act to provide for the Thirteenth and subsequent decennial censuses" (Pub. No. 2) was passed by Congress and approved by the President on July 2, 1909. The bill had been under consideration for nearly two years, and its final passage was much nearer to the date of the actual enumeration than has been the case in most of the preceding census acts. The existence of the permanent Census Bureau, with the skeleton organization ready to expand for the work of the decennial census, has, however, largely obviated any difficulties which might have arisen by reason of the late passage of the census act. The new act follows in its general outlines the provisions under which the Twelfth Census was taken, but there have been a number of modifications of considerable importance. The principal changes are as follows:

SCOPE OF THE CENSUS.

The present act provides for taking a census covering four distinct fields of inquiry: Population, agriculture, manufactures, and mines and quarries. The census of 1900 did not cover mines and quarries, but the statistics of these industries were taken for the year 1902 by virtue of a provision in the permanent census act of March 6, 1902. There is an obvious advantage in having the census of mines and quarries cover the same period of time as the census of manufactures and agriculture.

On the other hand, the Thirteenth Census act differs from that for the Twelfth Census by making no provision for the special collection of statistics of births and deaths. At the Twelfth and certain preceding censuses each family was asked to report deaths which had occurred during the year. It was found impossible to obtain anything like complete statistics by this method, and the reports as to causes of death and the occupations of those who had died were particularly inaccurate. Under the permanent census act, as already stated, the Census Bureau now assembles each year the statistics of deaths collected by those states and cities which have an efficient system of registration of mortality. During the present year, moreover, the Census Bureau has begun to publish statistics similarly collected regarding births. Although the vital statistics thus published do not cover the entire country—in fact only about one-half of it—they are so much more accurate than those which could be obtained by the enumeration method that they furnish far more valuable information.

DATE OF THE CENSUS.

Under the Thirteenth Census act the enumeration of population is to be taken as of April 15 instead of June 1, as formerly. This change was made largely for the reason that fewer people are absent from their homes in April than in June. Moreover, under the new act the census of manufactures and of mines and quarries is to cover the calendar year 1909. By the Twelfth Census act the inquiry covered the fiscal year of each concern ended next preceding June 1, 1900. Practically, in most cases, the returns covered the calendar year 1899, but the change now made, which was originally suggested at the time of the publication of the results of the census of 1900, has the advantage of making it possible to begin the collection of manufacturing and mining statistics as early as January, 1910, whereas in 1900 no beginning could be made before June 1. This change will not only facilitate the completion of the report on manufactures within the time fixed by law, but will also tend to greater accuracy, since the returns will be called for at a time when the information is fresh in the minds of the manufacturers and the operators of mines and quarries.

CIVIL-SERVICE EXAMINATION OF CLERICAL FORCE.

The census act provides for the appointment of the additional force necessary in the Washington office of the Census Bureau by means of an examination prescribed by the Director of the Census and conducted and rated by the Civil Service Commission, selections from the eligible register to be in the order of rating. The act also provides that the appointments as a result of this examination are to be apportioned among the several states in accordance with the law of apportionment provided for the classified service. It further provides that not only in the case of examinations for the Census Bureau, but in all other civil-service examinations, the applicant must have had his actual domicile for at least one year in the state where he is examined. Under the Twelfth Census act the clerical appointments were made subject to such examination as the Director of the Census should prescribe but the examination was not required to be competitive—and was not in fact competitive—and no apportionment of appointments was provided.

In order to prevent any delay in the necessarily rapid expansion of the clerical force, the Thirteenth Census act authorizes, in case of emergency, the appointment, for not to exceed sixty days, of any person who has passed the examination, regardless of apportionment or relative rating; and also the appointment, for not to exceed sixty days, without examination, of any person who has had previous experience, satisfactory to the Director of the Census, in the operation of mechanical appliances in census work.

COMPENSATION OF SUPERVISORS AND ENUMERATORS.

The Thirteenth Census act provides for somewhat more liberal compensation of supervisors than was provided by the act of 1900, and also permits the Director in his discretion to fix rates of compensation for the enumerators somewhat in excess of those permitted in 1900. The increase in the population of the various districts, as well as the increase in the cost of living, makes this advance in the compensation of supervisors appropriate, and has proved of material assistance in securing competent men for these important positions. It is not the intention of the Director to fix rates of compensation for enumerators materially higher than those in the census of 1900 except in districts presenting peculiar difficulties.

PENALTIES FOR DISCLOSURE OF INFORMATION.

The Thirteenth Census act is more specific than that for the Twelfth Census with respect to penalties upon supervisors, enumerators, or other employees who disclose information which they secure, or who make false returns. While there is no evidence that employees of the Census Bureau in the past have been guilty of improper disclosure of information—except, possibly, in a very few cases—these more specific provisions for penalties are highly advantageous. Although the census law requires persons interrogated to furnish the information called for on the duly authorized schedules, reliance for prompt and accurate returns must rest largely upon the good will of those making the returns. Manufacturers, farmers, and others will not freely disclose the needed information unless they feel assured that it will be treated in strict confidence. The Census Bureau exists solely for the collection of general statistics, and is not, and should not be, an instrument for disclosing the affairs of individual persons, firms, or corporations. Returns made by the Census Bureau are, in no case, published in such a way as to identify the business operations of individual persons or concerns; nor are they disclosed to any person aside from employees of the Bureau itself—not even to other Departments of the Government or to other bureaus of the Department of Commerce and Labor.

APPROPRIATION FOR THE THIRTEENTH CENSUS.

On June 29, 1909, an appropriation of $10,000,000 was made by Congress for the salaries and necessary expenses of the Thirteenth Census. This appropriation is not limited to the fiscal year 1910, but it is probable that the greater part of it will be required during that year, as the pay of supervisors and enumerators and of special agents for the collection of manufactures and mining statistics—in other words, the cost of the field collection of statistics for the census—will nearly all fall within the present fiscal year. Further appropriation will therefore be necessary to cover the cost of tabulation and publication to be incurred during the remainder of the census period.

As stated by my predecessor in his annual report for 1908, the Director of the Census then estimated the cost of taking the Thirteenth Census and at the same time continuing the regular annual work of the Census Bureau for the three-year census period ending June 30, 1912, at $14,117,000. Of this amount, it was estimated that $12,930,000 would be the cost of the special decennial census work, the remainder representing the cost of carrying on the other functions of the permanent Census Bureau. It is still hoped that this estimate of the expenses of the census will not be exceeded, notwithstanding the fact that it is substantially the same amount that was spent upon the Twelfth Census, since which there has been an increase of approximately 20 per cent in the population to be enumerated, and a still greater increase in the volume of agricultural, manufacturing, and mining operations. There is no doubt that material economies can be effected in the cost of tabulation and publication which will largely if not wholly offset the necessary increase in the cost of the collection of the statistics in the field. It is not possible at the present time to give any more precise estimate of the cost of the Thirteenth Census than that made in the annual report for 1908.

QUARTERS FOR THE CENSUS FORCE.

In the annual report for 1908, and previously, the Director of the Census recommended to Congress an appropriation for the purchase of the building now occupied by the Census Bureau, the purchase of the adjoining building formerly occupied by the Business High School and more recently by the Southern Railway Company, and the purchase of the vacant ground also adjoining, and the erection thereon of a modern office building. A provision for this purpose was incorporated in a bill which called for an appropriation of $680,000. This provision, however, failed to meet the approval of Congress, and no authority whatever was given for the purchase or construction of quarters for the Census Bureau.

Under these conditions, the Bureau has made arrangements to continue the lease of the building now occupied and to lease two additional buildings. This increase in quarters will be imperatively necessary to accommodate the great addition to the clerical force which will be needed during 1910. The permanent census force at Washington consists of less than 700 persons, whereas during the period of maximum activity in the census work upward of 3,500 will be employed. The present building of the Census Bureau will not accommodate more than half of this force. One of the additional buildings which has been leased is the old Business High School building, adjoining the Census building, to which reference has been made; this has been secured at an annual rental of $6,000 from January 15, 1910. This building contains about 32,000 square feet of floor space. The other building is one originally constructed for an armory on L street NW., between Fourth and Fifth streets, and contains about 60,000 square feet. The rental of this building is $13,000 per annum, beginning January 1, 1910. These two buildings together have about the same floor space as the present Census building. Under this arrangement the greater part of the force will be practically in one place and all the remainder in one other building. While this separation will be somewhat less convenient than the plan of having the entire force assembled in three adjoining buildings, it will be much more convenient than the arrangement at the Twelfth Census, when several different buildings, scattered throughout Washington, had to be rented. The total annual rental of the three buildings to be used by the Bureau is $40,000, and the expenditure for that purpose during the three-year period from July 1, 1909, to June 30, 1912, will be about $112,000. A slight additional expenditure is also required for storage and other quarters pending the occupation of the two additional buildings above mentioned.

TABULATING MACHINES.

Under special authority and appropriation of Congress, the Census Bureau has continued during the fiscal year its experiments in designing tabulating machines. Designs for a punching machine and a tabulating machine, to be used in handling the population statistics of 1910, were perfected, and in August, 1909, contracts were let for the construction of 300 of the punching machines and 100 of the tabulating machines. The contract price of the punching machines is $250 each and that of the tabulating machines $478 each. The actual cost of the tabulating machines is, however, greater, as the Government furnishes to the contractors the material, much of which had been previously manufactured either in the machine shop of the Census Bureau or by outside concerns, and as the Bureau itself is manufacturing the counters which are to be used in connection with the tabulating machines. The total cost of each tabulating machine, with counters, may be estimated at approximately $800, and the total cost of the machines for tabulating and those for punching will thus be approximately $155,000.

Tabulating machinery is essential to the economical compilation of the statistics of population. A card is punched for each man, woman, and child in the country, showing by appropriate holes all the facts with regard to the individual which are disclosed by the schedules secured by the enumerators. There will thus be in the neighborhood of 90,000,000 of these population cards, and in addition nearly 20,000,000 cards will be required to present the facts with regard to families. The cards thus punched are run through the tabulating machines, which by means of electrical connections not merely count the population, but combine the facts with regard to color, sex, age, nativity, and the like.

The punching machine to be used at the present census differs materially from that used at the last census. The former punching machine had only one key, which had to be moved about and pushed through the proper holes. The new machine has more than 250 keys corresponding to the various possible facts and operated somewhat in the manner of a typewriter or an adding machine. All the necessary keys for punching a given card are set before any of the holes are actually punched. An error in setting a single key can thus be readily corrected, whereas formerly if an error was made the card had to be destroyed, although many holes might have been already punched in it. This change, together with the greater clearness of the designations of the various facts upon the keyboard, will, it is believed, materially increase the accuracy of the punching work and also increase the speed with which it is done.

The tabulating machines for which the contract has been let differ from those formerly employed chiefly in having a device for automatically printing the results of the count of the various facts for each division of the country, whereas formerly the results were recorded on dials from which they had to be transcribed in manuscript. This change, and others, will result in the saving of much time on the part of the operator, as well as in greater accuracy.

The Bureau is still experimenting with another form of tabulating machine which, if perfected, will be capable of much greater rapidity. In the machine described in the preceding paragraph, each card has to be fed in for tabulation by the hand of the operator. The machine under development has an automatic feeding device by which the cards are handled much more rapidly than can be done by hand.

In addition to the punching and tabulating machines, the handling of the population cards requires the use of sorting machines which separate them into certain groups. The Bureau is conducting experiments with respect to these machines, and expects to be able to secure machines of high efficiency.

At the Twelfth Census the statistics of agriculture, as well as those of population, were tabulated by means of punched cards and electrical tabulating machines. Because of the large number of items on the agricultural schedule an average of about 20 separate cards was required for each farm. The very marked economies which the card system brings about in handling population statistics can not therefore be secured in handling the agricultural statistics. For this reason the Census Bureau contemplates the abandonment of the card system in the agricultural census of 1910. Instead, the figures in the schedules will be taken off either by typewriter-adding machines or more likely, by ordinary adding machines provided with several columns. Either of these methods will have the advantage of presenting the figures for the various farms in plain numerals and in due order, so that they can be readily scrutinized. At the census of 1900 a very large expenditure was incurred in editing the individual schedules—correcting obvious errors and inserting omitted figures. It is believed that much of this editorial work did not add enough to the accuracy of the returns to justify its cost.

ORGANIZATION OF THE FIELD WORK OF THE THIRTEENTH CENSUS.

The work of taking the census naturally divides itself into two parts—the collection of the statistics in the field and their tabulation and publication.

The field work will be divided into two main parts. The first has to do with the collection of the statistics of population and agriculture, and the second with the collection of the statistics of manufactures and mines and quarries. For the most part these two branches will be committed to distinct groups of employees. The population and agricultural statistics will be collected by enumerators under the direction of the supervisors. In localities where there is very little manufacturing or mining, the statistics for these subjects will also be collected by the enumerators. For the most part, however, the statistics of manufactures and mines and quarries will be withdrawn from the supervisors and enumerators and intrusted to special agents, as authorized by law.

SUPERVISORS AND ENUMERATORS.

The census act provides for 330 supervisors of the census. All but one or two of these have been appointed by the President and have entered upon their duties. In most cases each supervisor has charge of a district corresponding to a congressional district. Each of the large cities of the country, however, is made a single supervisor's district, and the same is true of the states of Massachusetts, Connecticut, New Hampshire, Rhode Island, and Vermont, while in a few other cases the convenience of the work has necessitated a departure from the lines of the congressional districts.

Under the law each supervisor's district has to be divided into convenient enumeration districts, in each of which one or more enumerators are to be appointed. Except under unusual conditions, there will be only one enumerator to each district. The total number of enumerators required in order to finish the work within the time limited by law will be about 68,000. Under the law the enumeration is to begin on April 15, 1910, and be completed within thirty days in the country districts and within two weeks in cities and towns of more than 5,000 inhabitants according to the preceding census.

Examination of enumerators.—The census act provides that it is the duty of the supervisors to "designate to the Director suitable persons and, with his consent, to employ such persons as enumerators." It is self-evident that, if the consent of the Director to these appointments is to have any significance whatever, there must be some form of examination or test by which the qualifications of the candidates designated by the supervisors may be judged. It would be quite impossible for the Director otherwise to obtain any information whatever as to the capacity of the great majority of the 68,000 enumerators.

At the last census, the provisions of law regarding the appointment of enumerators being precisely the same as under the Thirteenth

Census act, the Director required each person designated as enumerator by the supervisors to submit to a test consisting of the preparation of a sample schedule of population from data regarding typical families, presented to the candidate in narrative form. The test itself was adequate, but the methods of conducting the examination were such as in no way to prevent the candidate from receiving assistance in the preparation of the schedule. The examination paper was sent to each candidate by mail, and, although he was required to certify that he had received no assistance, there is reason to believe that assistance was not infrequently secured, and in any case the people generally did not have full confidence in the effectiveness of the examination.

It is the intention of the Director at the present census to prescribe the same kind of test for enumerators as was required in 1900, but to have the examination conducted under due precautions. The difficulties to be overcome in properly conducting the examination are very considerable. Because of the short term of employment of the enumerators and the comparatively small amount of their compensation it would not be just or practicable to require the candidates to travel any material distance to the place of examination. The test must, therefore, be held at a very large number of places distributed through every part of the country, and a large number of persons must be secured to preside at the various examination places. It will probably prove necessary to make use of three different agencies for conducting the examination. The supervisors can preside in person at examinations in their home towns, 330 in all. In about 1,500 other places the Civil Service Commission has examining boards whose services the commission has agreed to place at the disposal of the supervisors. The greater number of candidates can be examined before one or the other of these two agencies. In other cases it will be necessary to have postmasters conduct the examination, and the Postmaster-General has authorized them to do so.

Every applicant for the position of enumerator, unless disqualified under definite rules, will be permitted to take the test. The papers of all the candidates in each supervisor's district will then be forwarded to the supervisor, who will be instructed to examine them carefully, select one person for each enumeration district (or possibly two in certain districts where it is desirable to have two enumerators), at the same time forwarding the papers of all of the candidates to the Bureau of the Census. It will not be possible for the Bureau of the Census to examine all the papers without undue expense, as there may readily be two or three hundred thousand candidates. The papers of those recommended by the supervisor, however, will be examined, and in the event that such a candidate fails to pass the test successfully the papers of the other candidates for the same district, if any, will be graded, and the supervisor required to designate one of the successful candidates.

It would not be desirable, even if possible, to require the supervisor in every case to select the candidate who passes the best test, as determined by the examination of the papers. There are important qualifications for an enumerator which can not be determined by a written test. Supervisors will, however, be required to give due regard to the relative excellence of the test papers in making their selections, in order that they may conform to the requirement of law that the persons whom they designate shall be "suitable." It is believed that this method of examination will result in excluding those who are clearly incompetent and that the supervisors will take advantage of the information secured through the examination to select not only competent but the most competent available persons.

SPECIAL AGENTS FOR MANUFACTURES AND MINES AND QUARRIES.

The census act authorizes the appointment of special agents for the collection of statistics of manufactures and mines and quarries, and for other purposes. Their compensation is limited to $6 per day. It will be the policy of the Bureau to appoint two classes of special agents, namely, chief special agents, each of whom will be put in charge of a district—such as a large city or a section of a state or an entire state—and subagents, who will in most cases work under the direction of these chief special agents. The chief special agents will be paid $4.50 to $6 per day, and the subagents from $3 to $4 per day. It is expected that from 1,600 to 1,800 special agents will be required for the field work on manufactures and mines and quarries, the great bulk of which should be completed during the first three or four months of 1910.

For the purpose of facilitating the selection of competent special agents, the Director of the Census prescribed an open competitive examination, which was held on November 3, 1909, throughout the country. Through the courtesy of the Civil Service Commission, the various local examining boards of the commission presided at the holding of this examination, but the papers were graded in the Census Bureau. This examination was of a character designed to give a practical test of the fitness of the candidate for the actual work of collecting the required statistics. Each candidate was required to present an application stating in detail his education and previous experience, supported by proper evidence and nonpartisan recommendations. One-half of the rating of each candidate was based on education and experience as indicated by this application. The remainder of his rating was based on a test consisting of the filling out of a sample manufactures schedule from data regarding a hypothetical establishment. This test was of two grades corresponding to the two classes of special agents above mentioned. Persons who have had previous successful experience in collecting manufactures or mining statistics for the census, or who have passed civil-service examinations for the position of special agent in the Bureau of Labor or the Bureau of Corporations, were made eligible without further examination.

As the result of this examination, which was widely advertised and which was taken by over 2,500 people, the Bureau has secured an eligible list of persons who are believed to be exceptionally well fitted for the work of collecting manufactures and mining statistics. In making selections from this eligible list it will be necessary to take the residence of the candidates into consideration as well as their relative ratings, since the interests of economy make it essential that, so far as possible, special agents should be assigned to work in the localities where they reside.

It is the intention in the present census to adopt the policy of specialization in the work of the field agents on manufactures and mines and quarries, so far as it can be done without unduly increasing the expense. That is to say, certain special agents will be designated to canvass certain classes of establishments with which they are already familiar, or with which they will become familiar by such specialization. This arrangement can be carried out economically only in large industrial centers where there are numerous establishments of a given class. It would involve undue expense, through duplication of travel and of the time of agents, were it applied throughout the entire country.

ORGANIZATION OF THE OFFICE FORCE.

The existence of a permanent Census Bureau renders the task of organizing the office work in connection with the Thirteenth Census much more simple than was the case when an organization had to be created *de novo* for each census. In fact, comparatively few additions are required in the higher grades of service in the Bureau. Most of the chief statisticians and chiefs of division and the geographer were already provided for and actually in service on the permanent roll, so that for the most part all that is necessary is to multiply the force of clerks of lower grade to provide for the great increase in the amount of work to be done.

During the Twelfth Census there existed five principal divisions in the Census Bureau, each headed by a chief statistician, namely, the divisions of Population, Manufactures, Agriculture, Vital Statistics, and Methods and Results. All of these divisions were continued as part of the permanent census organization after the completion of the Twelfth Census, the name of the last being changed to Revision and Results. Under the permanent census act, however, only four chief statisticians were provided for, and the fifth division, which had been under the charge of a chief statistician during the Twelfth Census, was consequently placed in charge of an expert chief of division. The Thirteenth Census act again provides for five chief statisticians, and the Division of Revision and Results has therefore been placed under the charge of a chief statistician. Four of the five chief statisticians at present employed were engaged in similar work during the Twelfth Census, and the chief statisticians of Agriculture and Population held the same positions during the Twelfth Census.

The addition of the subject of mines and quarries to the scope of the decennial census would seem logically to call for a chief statistician of Mines and Quarries. For the time being the subject has been added to the field of the chief statistician of manufactures. In order, however, to relieve him as much as possible of the burden of this additional work, a separate division of mines and quarries has been established under the general supervision of the chief statistician of manufactures. A chief of division has been assigned to this new division and also an expert special agent.

Under the Twelfth Census act there were five expert chiefs of division in addition to the chief statisticians. By the permanent census act the number of chiefs of division was reduced to four, but under appropriation acts from time to time others have been provided for, so that in the fiscal year 1909 eight were in service. The Thirteenth Census act provides for twelve of these chiefs of division, and the additional places have now all been filled. Most of these chiefs of division act as assistants to the chief statisticians, having in charge subdivisions of the work of the five principal divisions.

The provisions of law authorizing the appointment of an Assistant Director, a fifth chief statistician, and an appointment clerk, all of which positions have been filled, have greatly facilitated both the administrative and the scientific work of the Bureau.

Under the provisions of the census act a special civil-service examination for the additional clerical force of the Thirteenth Census was held by the Civil Service Commission on October 23. About 5,700 candidates took the examination. It is anticipated that about 3,000 appointments will have to be made from the eligible register thus established and at the time this report is written it is not possible to say whether or not the eligible register will be adequate. The same examination was taken by all candidates, but an additional test in typewriting was provided with a view especially to the selection of clerks to operate the typewriter-adding machines or ordinary adding machines in the tabulation of agricultural statistics, already referred to.

MEANS OF SECURING ACCURACY AND COMPLETENESS IN THE CENSUS.

The expenditure of the many millions which each decennial census requires can be justified only if the data secured present a substantially correct picture of the population and industries of the country. The difficulties involved in securing complete and accurate statistics are not fully appreciated by the public. Even the enumeration of the population, with the essential details regarding age, conjugal condition, nativity, occupation, and literacy or illiteracy, involves many difficulties. For example, the greatest judgment is required on the part of the enumerator merely to determine what persons are properly to be enumerated in his district, since the law requires that everyone shall be enumerated at his "usual place of abode" rather than at the place where he happens to be at the time of the enumeration. Moreover, it is quite impossible for the enumerator, in the length of time and for the compensation which is allowed him, to interview personally every individual, and he sometimes has to secure the "personal description" from boarding-house keepers, hotel keepers, or neighbors instead of from the person himself, although such methods are permitted only when absolutely necessary. In the agricultural census difficulty is encountered from the fact that most farmers do not keep accounts, or even records of the quantities of their crops, so that their reports to the enumerator are subject to the defects of memory. The great complexity of modern business and the diverse ways in which business accounts are kept render it exceedingly difficult also to obtain strictly comparable returns from manufacturers and mine operators. Absolute accuracy in the census can not therefore be hoped for. The problem is to reduce the margin of error to a minimum, to eliminate estimates as far as possible, and to secure the greatest care in making such estimates as must be made.

THE SHARE OF THE PUBLIC IN CENSUS WORK.

The completeness and accuracy of the census depend in no small measure upon the interest and the intelligent cooperation of the people themselves. Comparatively little difficulty has been encountered in the past from unwillingness to make the census returns. The people very generally appreciate the great importance to their own interests of knowing accurately not only the number of the population, but its elements and characteristics, and of possessing accurate information regarding the resources and the products of the country and of its several states and divisions. Correct census statistics are essential to a proper understanding of the great economic and social problems of the day, to a proper conduct of business, and to proper legislation and administration of government. The provisions of law regarding the confidential treatment of the statistics, as well as the uniform policy of the Census authorities at all times in that respect, assure the citizen that no possible injury can come to him from making such returns.

The Census Bureau is taking active measures to increase the interest of the people in the census and to prepare them to make accurate returns by informing them in advance regarding the interrogatories which will be addressed to them. By means of the press, by means of agricultural colleges, farmers' institutes, and other farmers' organizations, by means of associations of manufacturers, and in other ways, information regarding the census is being widely disseminated. Much credit is due to these various agencies for the assistance which they are rendering.

RESPONSIBILITY OF ENUMERATORS AND SPECIAL AGENTS.

Next to a proper interest and cooperation on the part of the public, the most important means to secure accuracy and completeness in census returns is the employment of competent persons to collect the statistics. No degree of accuracy in the tabulation of the statistics in the Census Bureau can in any way give value to figures which have been erroneously collected by careless men in the field. The methods which have been adopted or which are proposed for securing competent enumerators and special agents have already been described. The Census Bureau must rely on every supervisor to cooperate loyally in the common purpose by exercising the greatest possible care in the selection and the direction of the enumerators, and must rely on every enumerator and every special agent to strive earnestly for complete and accurate returns.

SIMPLIFICATION OF THE CENSUS SCHEDULES.

Another essential to securing accurate returns is to make the work of the census enumerator or special agent as simple and easy as possible. The amount of work required of the employees in the field should be reduced to the lowest limit consistent with securing the information called for by law. Consequently the Census Bureau has given much study to the schedules on which information is collected, seeking to lessen the number of inquiries as much as possible and to present them in the clearest manner.

The inquiries on the population schedule are practically all specifically prescribed by law, and the schedule for the present census is broadly similar to that used ten years ago. A few significant changes have, however, been introduced, and the instructions to the enumerators regarding the filling of the schedule have been revised with great care.

The schedule of agriculture necessarily comprises a very large number of interrogatories in order to cover all the different classes of farm animals and of crops and other products. The arrangement of the schedule, however, has been simplified and the difficulty of filling it is by no means commensurate with its length. The instructions have also been shortened and made clearer.

The general schedule of manufactures has been very materially simplified as compared with that used in 1900 and at the quinquennial census of 1905, and still greater simplification has been made in the special schedules for individual industries. These changes have been partly designed to meet the objections raised by certain manufacturers against the alleged inquisitorial character of the inquiries, but the principal object has been to reduce the amount of work required of the special agent, or of the manufacturer who himself fills out the schedule. The policy has been to eliminate questions calling for details which experience has shown can not be obtained with accuracy or which, if obtained, are not of sufficient importance to warrant the extra cost, labor, and space required for their presentation. Most manufacturers keep records from which all the information essential to the census can be secured with accuracy. The schedule has been devised with a view to eliminating estimates as far as possible, and special agents will be instructed to lay particular stress on securing bookkeeping figures. Leading manufacturers and officers of associations of manufacturers have been consulted regarding the form of the general and special schedules of manufactures, with a view to making them practical and to securing information of the greatest possible value.

It is believed that the amount of time required to fill out the general manufactures schedule for the present census from actual bookkeeping records is not more than a fraction as great as the amount which would have been required to fill it correctly from such records in 1900. This great reduction has been brought about chiefly by eliminating the question regarding classified wages, and by calling only for the total number of employees—regardless of sex or age—for a given day of each month, instead of calling for the average number, distinguishing sex and age, for each month. The calculation of this average number from bookkeeping records was highly intricate, and, as a matter of fact, estimates were very generally resorted to. The true average number for the year can be computed with a very close approximation to accuracy from the number for one day of each month. The distribution by sex and age is asked for a single date only, but the conditions on that date may be considered typical of the entire year.

Another change in the manufactures schedule which tends to eliminate estimates is the abandonment, in the inquiry regarding materials used, of the distinction between strictly raw materials and partly manufactured materials. This distinction, if accurately made, furnished information of some value for eliminating duplication in the value of products, due to the use of the product of one manufacturing establishment as the material of another. But, as pointed out in the reports of the censuses of 1900 and 1905, the duplications can be eliminated only in the total for the United States, and not in the figures of individual states or cities or individual industries, and in view of the fact that the books of manufacturers are not ordinarily kept in such a way as to distinguish these two classes of materials, it was deemed unwise to call for the separation, thereby encouraging the practice of making estimates. What is probably the fairest measure of the relative importance of the different states, cities, and industries in manufacturing can be accurately determined without this distinction by simply subtracting the total value of all the materials from the value of the finished product, the difference representing the contribution of the manufacturing process to the wealth of the country.

In the special schedules for individual manufacturing industries much simplification has been secured, chiefly by eliminating inquiries regarding quantity and value of individual articles used as raw materials, except the most important, and by eliminating inquiries regarding the number and character of minor machines used, while calling for the leading classes of machines. It was found that there had been in previous censuses much lack of uniformity in the amount of detail called for in different industries. In some cases information was sought which could be of very little general public utility. It has been deemed wise to some extent to sacrifice even information which might be of appreciable value in order, by lessening the work required of special agents or manufacturers, to make sure that they will do more thoroughly and conscientiously the work essential to securing correct information regarding the fundamental facts of the industry.

IMPORTANCE OF EXPERT SERVICE IN THE CENSUS.

The decennial census as now required by law is vastly more complex than the simple enumeration of the inhabitants which was undertaken in the earlier censuses. Inquiries regarding the population itself have been greatly expanded with a view to ascertaining the elements and characteristics of the population. Great public interest attaches to such questions as the family, the foreign born and their descendants, and the negro race. A proper analysis and interpretation of the statistics of the population thus requires highly expert service. Moreover, the census has now been expanded to cover the basic industries of the country, agriculture, mining and quarrying, and manufactures. Each of these three great branches of industry, and particularly mining and manufacturing, is by no means a simple and uniform whole, but is made up of a large number of separate industries differing radically in their methods. A proper compliance with the requirements of law which call for the quantity and value of the raw material of manufacture, the quantity and value of the products of both manufacture and mining, and the number and character of machines, necessitates the use of special schedules for each of the principal mining and manufacturing industries in addition to the general schedule. A proper presentation and analysis of the statistics of the many individual mining and manufacturing industries thus collected requires again a very large amount of highly expert service.

The chief statisticians can not possibly, in the limited time allowed by law, themselves perform all of the expert service thus required. Much of their time is necessarily given to administrative work, and what remains no more than suffices for the preparation of the general reports dealing with the population or the industries of the country as a whole, leaving them not sufficient time to take up special subjects or individual industries. The expert chiefs of division provided by law find their time almost wholly employed in directing the great force of clerks and in other primarily administrative work. It is, therefore, necessary to secure a large part of the expert service needed for a proper presentation of the statistics and preparation of the reports from expert special agents. The law permits the employment of an indefinite number of special agents for the collection of statistics, and for the expert analysis of them, but prior to the passage of the urgent deficiency act of August 5, 1909, the compensation of such special agents was limited to $6 per day. While this rate is adequate for the great majority of field agents and for many of those special agents who are employed for office work, it is entirely inadequate to secure the highly expert service which is needed on the part of those who are to accept practically the final responsibility for the preparation of the reports on special subjects and industries. Men of capacity sufficient to do this work properly are in nearly all cases already commanding a higher rate of compensation than $6 per day, and it is particularly difficult to secure the services of such men for temporary work, such as the Census offers.

With a view to providing for such expert service the Director of the Census requested from Congress the authority to pay to not more than 20 of the special agents a greater compensation, not in excess of $10 per day. By the urgent deficiency act of August 5, 1909, a maximum rate of $8 per day was authorized for not over 20 of such agents. This provision has already been of great advantage in enabling the Census Bureau to secure expert service, and will be of still greater advantage later on when the work of analyzing the statistics and preparing the final reports is taken up. It is believed, however, that still better results can be obtained if the maximum rate is fixed at $10 per day as originally suggested, and the importance of a careful and scientific presentation of the statistics seems fully to justify this increase in the rate.

It is not the intention of the Director to employ the full number of 20 expert special agents—whether at the rate of $8 per day or at a higher rate, in case such higher rate is authorized—during the entire census period. At the present time only 9 special agents are paid at a rate in excess of $6 per day. In many cases the services of an expert special agent, who is especially familiar with some particular subject or industry, will be required for a few months only. It is believed that such additional compensation to special agents for expert service will not at all increase the total expense of the census, since their service will beyond question result in economy in clerical work and in the cost of publication.

Much assistance has been secured in drafting the new census schedules of interrogatories through the temporary employment of expert special agents. A number of trained statisticians and economists were called to Washington during the summer of 1909 for this purpose. Experts connected with various manufacturing and mining industries have also been called on for assistance, either coming to Washington for that purpose or working at their own homes.

The law providing for the increased rate of pay for twenty expert special agents contains the proviso that such special agents shall be persons of known and tried experience in statistical work. It is the intention of the Director to conform strictly to this proviso. The expert special agents will be either men who have had thorough economic and statistical training in universities or in public positions, or men who have had special experience in connection with the leading industries of the country.

Respectfully submitted.

E. DANA DURAND, *Director*.

To Hon. CHARLES NAGEL,
Secretary of Commerce and Labor.

APPENDIX A.

STATEMENT OF APPROPRIATIONS AND DISBURSEMENTS DURING THE FISCAL YEAR ENDED JUNE 30, 1909, ON ACCOUNT OF THE BUREAU OF THE CENSUS.

Appropriations.	Amounts appropriated.	Disbursements prior to July 1, 1908.	Disbursements by disbursing clerk, Bureau of Census, during fiscal year ended June 30, 1909.	Claims settled by the Auditor for the State and other Departments during fiscal year ended June 30, 1909.	Balances June 30, 1909.
Collecting statistics:					
1907–8	$150,000.00	$145,403.29	$2,265.96	$642.72	$1,688.03
1908	375,000.00	370,113.20	4,526.58	156.49	203.73
Salaries, 1908	706,860.00	638,839.87	57,030.88	41.66	10,947.59
Stationery, 1908	6,000.00	5,751.89	19.47	218.16	10.48
Library, 1908	1,000.00	725.97	267.58	.25	6.20
Rent, 1908	22,080.00	20,240.00	1,840.00		
Tabulating statistics, 1908	30,000.00	22,951.07	6,521.34	377.48	150.11
Miscellaneous expenses, 1908	15,000.00	13,695.98	1,188.00	109.67	6.35
Collecting statistics:					
1908–9	30,000.00	4,457.16	24,892.32	444.90	205.62
1909	325,000.00		305,206.74	208.35	19,584.91
Salaries, 1909	704,860.00		604,188.17		[a] 100,703.93
Stationery, 1909	8,000.00		3,634.65	1,836.97	2,528.38
Library, 1909	1,000.00		763.59		236.41
Rent, 1909	22,080.00		20,240.00		1,840.00
Tabulating statistics, 1909	40,000.00		29,593.52	16.61	10,389.87
Miscellaneous expenses, 1909	20,000.00		14,975.91	2,998.75	2,025.34
Preliminary expense of the Thirteenth Census, 1909–10	150,000.00		1,947.12		148,052.88
Total	2,606,880.00	1,222,178.43	1,079,101.83	7,052.01	298,579.83

[a] Includes $32.10 received for transcripts of census records.

APPENDIX B.

OFFICE FORCE AS OF DECEMBER 1, 1909.

Assistant Director	William F. Willoughby.		
Chief Clerk	Albertus H. Baldwin.		
Appointment Clerk	Robert M. Pindell, jr.		
Disbursing Clerk	George Johannes.		
Chief Statisticians:			
Population	William C. Hunt.		
Manufactures	William M. Steuart.		
Agriculture	Le Grand Powers.		
Vital Statistics	Cressy L. Wilbur.		
Revision and Results	Joseph A. Hill.		
Geographer	Charles S. Sloane.		
Secretary to the Director	Hugh A. Brown.		
Expert Chiefs of Division:			
Population	Edward W. Koch. William H. Jarvis.		
Manufactures	Joseph D. Lewis. Frank L. Sanford. Jasper E. Whelchel. William A. Hathaway.		
Agriculture	Hickman P. Childers. Ernest H. Maling.		
Vital Statistics	Richard C. Lappin.		
Disbursing Office	George W. Crane.		
Publication	Voler V. Viles.		
Supervisors' Correspondence	Arthur E. Seymour.		
Expert on tabulating machinery	Harry Hayward Allen.		
Chief Mechanician	Charles W. Spicer.		
Total administrative staff			25
Stenographers, $1,800		2	
Clerks, class 4		7	
Clerks, class 3		18	
Clerks, class 2		47	
Clerks, class 1		322	
Clerks, $1,000		121	
Clerks, $900		32	
Clerks, $720		36	
Mechanical experts, $1,800		2	
Mechanical expert, $1,600		1	
Electrical expert, $1,400		1	
Electrical experts, $1,200		2	
Mechanicians, $1,200		2	
Machinist, $1,200		1	
Toolmaker, $1,200		1	
Machinist's helper, $720		1	
Apprentice boy, $720		1	
Apprentice boys, $420		5	
Skilled laborers, $1,000		6	
Skilled laborers, $900		3	
Skilled laborers, $840		2	
Skilled laborers, $720		17	
Unskilled laborers, $720		17	
Messengers, $840		5	
Assistant messengers, $720		10	
Messenger boys, $480		4	
Watchmen, $720		11	
Charwomen, $240		24	
			701
Total			726

SPECIAL AGENTS AS OF DECEMBER 1, 1909.

Special agents, "persons of known and tried experience in statistical work"	9	
Special agents, including experts, agents for general field work, etc	56	
Special agents, cotton	736	
		801
Total number of employees		1,527

The figures given above include the following temporary employees selected from civil-service registers pending the result of the census examination which was held on October 23:

Clerks, $1,000	3
Clerks, $720	33
Skilled laborer, $1,000	1
Unskilled laborers, $720	7
Assistant messengers, $720	2
Total	46

REPORT

OF THE

CHIEF OF THE BUREAU OF STATISTICS

expense. That is to say, certain special agents will be designated to canvass certain classes of establishments with which they are already familiar, or with which they will become familiar by such specialization. This arrangement can be carried out economically only in large industrial centers where there are numerous establishments of a given class. It would involve undue expense, through duplication of travel and of the time of agents, were it applied throughout the entire country.

ORGANIZATION OF THE OFFICE FORCE.

The existence of a permanent Census Bureau renders the task of organizing the office work in connection with the Thirteenth Census much more simple than was the case when an organization had to be created *de novo* for each census. In fact, comparatively few additions are required in the higher grades of service in the Bureau. Most of the chief statisticians and chiefs of division and the geographer were already provided for and actually in service on the permanent roll, so that for the most part all that is necessary is to multiply the force of clerks of lower grade to provide for the great increase in the amount of work to be done.

During the Twelfth Census there existed five principal divisions in the Census Bureau, each headed by a chief statistician, namely, the divisions of Population, Manufactures, Agriculture, Vital Statistics, and Methods and Results. All of these divisions were continued as part of the permanent census organization after the completion of the Twelfth Census, the name of the last being changed to Revision and Results. Under the permanent census act, however, only four chief statisticians were provided for, and the fifth division, which had been under the charge of a chief statistician during the Twelfth Census, was consequently placed in charge of an expert chief of division. The Thirteenth Census act again provides for five chief statisticians, and the Division of Revision and Results has therefore been placed under the charge of a chief statistician. Four of the five chief statisticians at present employed were engaged in similar work during the Twelfth Census, and the chief statisticians of Agriculture and Population held the same positions during the Twelfth Census.

The addition of the subject of mines and quarries to the scope of the decennial census would seem logically to call for a chief statistician of Mines and Quarries. For the time being the subject has been added to the field of the chief statistician of manufactures. In order, however, to relieve him as much as possible of the burden of this additional work, a separate division of mines and quarries has been established under the general supervision of the chief statistician of manufactures. A chief of division has been assigned to this new division and also an expert special agent.

Under the Twelfth Census act there were five expert chiefs of division in addition to the chief statisticians. By the permanent census act the number of chiefs of division was reduced to four, but under appropriation acts from time to time others have been provided for, so that in the fiscal year 1909 eight were in service. The Thirteenth Census act provides for twelve of these chiefs of division, and the additional places have now all been filled. Most of these chiefs of division act as assistants to the chief statisticians, having in charge subdivisions of the work of the five principal divisions.

The provisions of law authorizing the appointment of an Assistant Director, a fifth chief statistician, and an appointment clerk, all of which positions have been filled, have greatly facilitated both the administrative and the scientific work of the Bureau.

Under the provisions of the census act a special civil-service examination for the additional clerical force of the Thirteenth Census was held by the Civil Service Commission on October 23. About 5,700 candidates took the examination. It is anticipated that about 3,000 appointments will have to be made from the eligible register thus established and at the time this report is written it is not possible to say whether or not the eligible register will be adequate. The same examination was taken by all candidates, but an additional test in typewriting was provided with a view especially to the selection of clerks to operate the typewriter-adding machines or ordinary adding machines in the tabulation of agricultural statistics, already referred to.

MEANS OF SECURING ACCURACY AND COMPLETENESS IN THE CENSUS.

The expenditure of the many millions which each decennial census requires can be justified only if the data secured present a substantially correct picture of the population and industries of the country. The difficulties involved in securing complete and accurate statistics are not fully appreciated by the public. Even the enumeration of the population, with the essential details regarding age, conjugal condition, nativity, occupation, and literacy or illiteracy, involves many difficulties. For example, the greatest judgment is required on the part of the enumerator merely to determine what persons are properly to be enumerated in his district, since the law requires that everyone shall be enumerated at his "usual place of abode" rather than at the place where he happens to be at the time of the enumeration. Moreover, it is quite impossible for the enumerator, in the length of time and for the compensation which is allowed him, to interview personally every individual, and he sometimes has to secure the "personal description" from boarding-house keepers, hotel keepers, or neighbors instead of from the person himself, although such methods are permitted only when absolutely necessary. In the agricultural census difficulty is encountered from the fact that most farmers do not keep accounts, or even records of the quantities of their crops, so that their reports to the enumerator are subject to the defects of memory. The great complexity of modern business and the diverse ways in which business accounts are kept render it exceedingly difficult also to obtain strictly comparable returns from manufacturers and mine operators. Absolute accuracy in the census can not therefore be hoped for. The problem is to reduce the margin of error to a minimum, to eliminate estimates as far as possible, and to secure the greatest care in making such estimates as must be made.

THE SHARE OF THE PUBLIC IN CENSUS WORK.

The completeness and accuracy of the census depend in no small measure upon the interest and the intelligent cooperation of the people themselves. Comparatively little difficulty has been encountered in the past from unwillingness to make the census returns. The people very generally appreciate the great importance to their own interests of knowing accurately not only the number of the population, but its elements and characteristics, and of possessing accurate information regarding the resources and the products of the country and of its several states and divisions. Correct census statistics are essential to a proper understanding of the great economic and social problems of the day, to a proper conduct of business, and to proper legislation and administration of government. The provisions of law regarding the confidential treatment of the statistics, as well as the uniform policy of the Census authorities at all times in that respect, assure the citizen that no possible injury can come to him from making such returns.

The Census Bureau is taking active measures to increase the interest of the people in the census and to prepare them to make accurate returns by informing them in advance regarding the interrogatories which will be addressed to them. By means of the press, by means of agricultural colleges, farmers' institutes, and other farmers' organizations, by means of associations of manufacturers, and in other ways, information regarding the census is being widely disseminated. Much credit is due to these various agencies for the assistance which they are rendering.

RESPONSIBILITY OF ENUMERATORS AND SPECIAL AGENTS.

Next to a proper interest and cooperation on the part of the public, the most important means to secure accuracy and completeness in census returns is the employment of competent persons to collect the statistics. No degree of accuracy in the tabulation of the statistics in the Census Bureau can in any way give value to figures which have been erroneously collected by careless men in the field. The methods which have been adopted or which are proposed for securing competent enumerators and special agents have already been described. The Census Bureau must rely on every supervisor to cooperate loyally in the common purpose by exercising the greatest possible care in the selection and the direction of the enumerators, and must rely on every enumerator and every special agent to strive earnestly for complete and accurate returns.

SIMPLIFICATION OF THE CENSUS SCHEDULES.

Another essential to securing accurate returns is to make the work of the census enumerator or special agent as simple and easy as possible. The amount of work required of the employees in the field should be reduced to the lowest limit consistent with securing the information called for by law. Consequently the Census Bureau has given much study to the schedules on which information is collected, seeking to lessen the number of inquiries as much as possible and to present them in the clearest manner.

The inquiries on the population schedule are practically all specifically prescribed by law, and the schedule for the present census is broadly similar to that used ten years ago. A few significant changes have, however, been introduced, and the instructions to the enumerators regarding the filling of the schedule have been revised with great care.

The schedule of agriculture necessarily comprises a very large number of interrogatories in order to cover all the different classes of farm animals and of crops and other products. The arrangement of the schedule, however, has been simplified and the difficulty of filling it is by no means commensurate with its length. The instructions have also been shortened and made clearer.

The general schedule of manufactures has been very materially simplified as compared with that used in 1900 and at the quinquennial census of 1905, and still greater simplification has been made in the special schedules for individual industries. These changes have been partly designed to meet the objections raised by certain manufacturers against the alleged inquisitorial character of the inquiries, but the principal object has been to reduce the amount of work required of the special agent, or of the manufacturer who himself fills out the schedule. The policy has been to eliminate questions calling for details which experience has shown can not be obtained with accuracy or which, if obtained, are not of sufficient importance to warrant the extra cost, labor, and space required for their presentation. Most manufacturers keep records from which all the information essential to the census can be secured with accuracy. The schedule has been devised with a view to eliminating estimates as far as possible, and special agents will be instructed to lay particular stress on securing bookkeeping figures. Leading manufacturers and officers of associations of manufacturers have been consulted regarding the form of the general and special schedules of manufactures, with a view to making them practical and to securing information of the greatest possible value.

It is believed that the amount of time required to fill out the general manufactures schedule for the present census from actual bookkeeping records is not more than a fraction as great as the amount which would have been required to fill it correctly from such records in 1900. This great reduction has been brought about chiefly by eliminating the question regarding classified wages, and by calling only for the total number of employees—regardless of sex or age—for a given day of each month, instead of calling for the average number, distinguishing sex and age, for each month. The calculation of this average number from bookkeeping records was highly intricate, and, as a matter of fact, estimates were very generally resorted to. The true average number for the year can be computed with a very close approximation to accuracy from the number for one day of each month. The distribution by sex and age is asked for a single date only, but the conditions on that date may be considered typical of the entire year.

Another change in the manufactures schedule which tends to eliminate estimates is the abandonment, in the inquiry regarding materials used, of the distinction between strictly raw materials and partly manufactured materials. This distinction, if accurately made, furnished information of some value for eliminating duplication in the value of products, due to the use of the product of one manufacturing establishment as the material of another. But, as pointed out in the reports of the censuses of 1900 and 1905, the duplications can be eliminated only in the total for the United States, and not in the figures of individual states or cities or individual industries, and in view of the fact that the books of manufacturers are not ordinarily kept in such a way as to distinguish these two classes of materials, it was deemed unwise to call for the separation, thereby encouraging the practice of making estimates. What is probably the fairest measure of the relative importance of the different states, cities, and industries in manufacturing can be accurately determined without this distinction by simply subtracting the total value of all the materials from the value of the finished product, the difference representing the contribution of the manufacturing process to the wealth of the country.

In the special schedules for individual manufacturing industries much simplification has been secured, chiefly by eliminating inquiries regarding quantity and value of individual articles used as raw materials, except the most important, and by eliminating inquiries regarding the number and character of minor machines used, while calling for the leading classes of machines. It was found that there had been in previous censuses much lack of uniformity in the amount of detail called for in different industries. In some cases information was sought which could be of very little general public utility. It has been deemed wise to some extent to sacrifice even information which might be of appreciable value in order, by lessening the work required of special agents or manufacturers, to make sure that they will do more thoroughly and conscientiously the work essential to securing correct information regarding the fundamental facts of the industry.

IMPORTANCE OF EXPERT SERVICE IN THE CENSUS.

The decennial census as now required by law is vastly more complex than the simple enumeration of the inhabitants which was undertaken in the earlier censuses. Inquiries regarding the population itself have been greatly expanded with a view to ascertaining the elements and characteristics of the population. Great public interest attaches to such questions as the family, the foreign born and their descendants, and the negro race. A proper analysis and interpretation of the statistics of the population thus requires highly expert service. Moreover, the census has now been expanded to cover the basic industries of the country, agriculture, mining and quarrying, and manufactures. Each of these three great branches of industry, and particularly mining and manufacturing, is by no means a simple and uniform whole, but is made up of a large number of separate industries differing radically in their methods. A proper compliance with the requirements of law which call for the quantity and value of the raw material of manufacture, the quantity and value of the products of both manufacture and mining, and the number and character of machines, necessitates the use of special schedules for each of the principal mining and manufacturing industries in addition to the general schedule. A proper presentation and analysis of the statistics of the many individual mining and manufacturing industries thus collected requires again a very large amount of highly expert service.

The chief statisticians can not possibly, in the limited time allowed by law, themselves perform all of the expert service thus required. Much of their time is necessarily given to administrative work, and what remains no more than suffices for the preparation of the general reports dealing with the population or the industries of the country as a whole, leaving them not sufficient time to take up special subjects or individual industries. The expert chiefs of division provided by law find their time almost wholly employed in directing the great force of clerks and in other primarily administrative work. It is, therefore, necessary to secure a large part of the expert service needed for a proper presentation of the statistics and preparation of the reports from expert special agents. The law permits the employment of an indefinite number of special agents for the collection of statistics and for the expert analysis of them, but prior to the passage of the urgent deficiency act of August 5, 1909, the compensation of such special agents was limited to $6 per day. While this rate is adequate for the great majority of field agents and for many of those special agents who are employed for office work, it is entirely inadequate to secure the highly expert service which is needed on the part of those who are to accept practically the final responsibility for the preparation of the reports on special subjects and industries. Men of capacity sufficient to do this work properly are in nearly all cases already commanding a higher rate of compensation than $6 per day, and it is particularly difficult to secure the services of such men for temporary work, such as the Census offers.

With a view to providing for such expert service the Director of the Census requested from Congress the authority to pay to not more than 20 of the special agents a greater compensation, not in excess of $10 per day. By the urgent deficiency act of August 5, 1909, a maximum rate of $8 per day was authorized for not over 20 of such agents. This provision has already been of great advantage in enabling the Census Bureau to secure expert service, and will be of still greater advantage later on when the work of analyzing the statistics and preparing the final reports is taken up. It is believed, however, that still better results can be obtained if the maximum rate is fixed at $10 per day as originally suggested, and the importance of a careful and scientific presentation of the statistics seems fully to justify this increase in the rate.

It is not the intention of the Director to employ the full number of 20 expert special agents—whether at the rate of $8 per day or at a higher rate, in case such higher rate is authorized—during the entire census period. At the present time only 9 special agents are paid at a rate in excess of $6 per day. In many cases the services of an expert special agent, who is especially familiar with some particular subject or industry, will be required for a few months only. It is believed that such additional compensation to special agents for expert service will not at all increase the total expense of the census, since their service will beyond question result in economy in clerical work and in the cost of publication.

Much assistance has been secured in drafting the new census schedules of interrogatories through the temporary employment of expert special agents. A number of trained statisticians and economists were called to Washington during the summer of 1909 for this purpose. Experts connected with various manufacturing and mining industries have also been called on for assistance, either coming to Washington for that purpose or working at their own homes.

The law providing for the increased rate of pay for twenty expert special agents contains the proviso that such special agents shall be persons of known and tried experience in statistical work. It is the intention of the Director to conform strictly to this proviso. The expert special agents will be either men who have had thorough economic and statistical training in universities or in public positions, or men who have had special experience in connection with the leading industries of the country.

Respectfully submitted.

E. DANA DURAND, *Director*.

To Hon. CHARLES NAGEL,
Secretary of Commerce and Labor.

REPORT

OF THE

CHIEF OF THE BUREAU OF MANUFACTURES.

Department of Commerce and Labor,
Bureau of Manufactures,
Washington, October 1, 1909.

Sir: I have the honor to submit the following report of the work of the Bureau of Manufactures for the fiscal year ended June 30, 1909:

The steady development in the industrial activities of the country, with resultant increase in output beyond the requirements for home consumption, forces those in charge of such activities to seek for outlets abroad, and as a consequence the Bureau of Manufactures, which has come to be regarded by manufacturers and merchants as an intelligence office through which accurate information in regard to requirements of foreign markets may be obtained, is called upon for advice and assistance, thus taxing its resources and facilities to a degree that has made it difficult, with the present force, to fully and satisfactorily meet. There was an increase of 33 per cent in the number of letters written in the fiscal year 1909, and the increase promises to be much greater in 1910, the number of letters received and answered during the first three months of the latter year having largely exceeded the number for the corresponding period of the preceding year. The steady growth of the work of the Bureau, which has continued since its organization, clearly indicates that the demands of the business interests of the country for assistance in the promotion of national and international trade will continue to keep pace with the natural growth of the country.

The following list of subjects about which information was sought during the year will illustrate the variety and extent of the work, in the direction outlined above, which the Bureau is called upon to perform: Waterworks and their management in Berlin; uses made of the agave plant in Mexico; manufacture of denatured alcohol in France; apple industry in Nova Scotia; duties of art commissions abroad; chain manufacture in England and Germany; reclamation of cotton-growing lands in Egypt; effects of electrolysis in European cities; feather trade in China; flour-milling industry in Australia; manufacture of glacé fruits in France; malleable iron fittings in Germany; the frog industry in France; gas manufacture in Switzerland; ham curing in Austria-Hungary and Germany; markets for herring in the Orient; reclamation of the "Landes" in France;

market houses in foreign countries; orange and Bergamot oil industry in Italy; production of oil of rose, etc., in Oriental countries; the phosphate industry in Redonda Island; use of wood preservatives in European countries; rice production in Brazil; savings banks in foreign countries; production of the soya bean in the Orient and the use made thereof in European countries; sponge fisheries in West Indian and Mediterranean countries; the operation of the Canadian stamping act; taxation by municipalities in foreign countries; wages paid in the tobacco-growing districts of Cuba, Porto Rico, the Philippine Islands, and the Island of Sumatra; methods of purchasing tobacco by France and the qualities purchased; waterways in foreign countries; the zinc industry in Mexico; cloth used for clothing the armies of European countries. These do not cover all requests, a number of others local in character having been handled.

FOREIGN TRADE OPPORTUNITIES.

That feature of the Bureau's work known as "Foreign trade opportunities," through which American business concerns are made acquainted with opportunities offered in foreign countries for the sale of American products, is growing in volume and popularity, and numerous acknowledgments have been received from manufacturers and exporters expressing appreciation of the great value of this service. During the year there were prepared and published in Daily Consular and Trade Reports nearly 1,300 separate items, each presenting an opportunity for the sale of American products abroad. The Bureau is constantly receiving letters direct from manufacturers and agents who handle their output for this reserved information. The number of letters written by the division in charge of "Foreign opportunities" for the year ended June 30, 1909, exclusive of many letters of a miscellaneous character, was 9,400 against 6,550 the preceding year. The range of inquiries prompted by the publication of these opportunities is both extensive and comprehensive. The inquiries and letters come from young American engineers who desire to secure positions in South America; from importers who wish to buy feathers in China, ivory nuts from Ecuador, hides from India, etc.; from horticulturists for sources of supply of rare plants; and from many people who seek knowledge of new processes of manufacture and of industrial and scientific progress.

PLANS OF PROJECTED IMPROVEMENTS ABROAD.

Formerly few firms in the United States gave attention to foreign trade, trusting to export agencies and jobbers for occasional orders. The manufacturers were thus seldom conversant with the needs of foreign markets, which differ essentially from the home field, and were not in position to properly develop their export trade. A noticeable feature at the present time is the assiduity with which the producers of American articles are studying the world's markets for openings for their respective lines. It can not be doubted that this will have its effect in increasing the exports of manufactures ready for consumption, which amounted roundly in the fiscal year 1909 to $440,000,000 and which is equivalent to 27 per cent of the total shipments abroad for the year.

In seeking opportunities to promote American trade abroad, special agents and consular officers frequently transmit to the Bureau invitations for tenders for constructing public utilities, constructions of large magnitude for private parties, the purchase of machinery, etc. In many cases the specifications are accompanied by blueprints, drawings, photographs, etc. As a rule only one set of these essential documents is furnished, which is loaned to American applicants in the order of application. While this is the best that can be done, it is highly unsatisfactory, as it practically excludes in many cases all interested parties except those favored with the early loan of the documents. Time and distance being important and often determining factors, early examination of the specifications is necessary to intelligent preparation of tenders and their prompt transmittal. Complaints have been made because consular officers do not furnish several sets of the specifications, and because the Bureau does not have the desired documents reproduced in sufficient numbers to supply the demand. These complaints proceed from a lack of knowledge of the actual conditions that obtain. On the one hand, it frequently happens that the documents described are issued only upon payment of a fixed sum, or are so limited in number that not more than one set can be furnished consular officers. On the other hand, money to reproduce the documents is not available, and if it were the time that would be consumed in reproduction would prevent their successful use. To overcome these obstacles it is suggested that means be provided to enable consular officers to purchase, upon authorization from the Bureau of Manufactures, the number of sets of these documents that might be required by intending bidders in the United States, the latter furnishing the Bureau with a satisfactory guaranty that any expense incurred on this account will be reimbursed.

INTERNATIONAL TRADE DIRECTORY.

In previous reports attention has been invited to the collection, compilation, and classification of the names of business concerns in foreign countries who handle imported merchandise. These names, numbering several hundred thousand, are classified according to the particular business in which engaged, and the work is in such form as to make the names readily accessible to manufacturers and merchants of the United States seeking parties abroad who are prepared to handle goods that are being exported or that may be exported from the United States. This list is very extensively used by American business houses. The demands, however, upon the Bureau have become so numerous and so comprehensive that it is impracticable to supply the information with the fullness that is requested and which intelligent exploitation of American trade requires. For example, requests come from manufacturers of agricultural implements and other classes of machinery in which American makers excel, and manufacturers of builders' hardware, household and office furniture, etc., for names of dealers in a country, and in some instances such requests include a continent. The best that can be done in such instances is to select a few names from the list and notify applicants that it is not possible for the Bureau to supply a greater number of names, informing them at the same time that the list is at their disposal and may be copied by any person designated by them for that purpose. Leading business concerns who have come to understand the magnitude and value of this international collection have been urging its publication for distribution, limited to American business concerns willing to purchase copies at a price that would cover the expense of publication. The publication of these names would not only be a great help to American manufacturers and merchants, but result in a great saving of labor and expense to the Bureau. It will readily be seen that it is physically impossible for the Bureau to make proper use of this valuable collection of names, and its publication therefore seems to be required to give force and value to the labor that has been expended in its collection and compilation. It is recommended that Congress be asked to authorize early publication of this work and its distribution under such limitations and regulations as may be prescribed by the Department.

EFFORTS OF FOREIGN GOVERNMENTS TO EXTEND TRADE.

Since the system of special agents to report on trade conditions abroad was instituted under the Bureau, and the publication of trade opportunities was begun, foreign nations have undertaken similar work. With more help than is furnished this Bureau, the result of larger appropriations of money, other nations have been enabled to improve on the work done here. France, Germany, and the United Kingdom have done much to improve their service. The United Kingdom has an organization which appears to be doing effective work. The Board of Trade, which is a government department presided over by a cabinet officer, has charge of these matters. It appointed an advisory committee on commercial intelligence, with the following duties:

> (*a*) To advise the Board of Trade on the work of their commercial-intelligence branch, and on such matters relating to foreign tariffs and other commercial questions as the Board may refer to them; and (*b*) to improve the means of obtaining and diffusing information for the benefit of British trade by means of commercial missions and correspondents abroad and otherwise as they may think fit.

The report of the commercial-intelligence branch of the Board of Trade tells of the increase from 4,399 letters of inquiry received in 1905 to 11,267 in 1908, and goes on to say:

> In addition to answering inquiries on special subjects, an increasing amount of useful work is being performed by the branch disseminating information furnished by His Majesty's commercial attachés and consular officers, as well as by the trade commissioners and trade correspondents of the branch, with regard to the conditions and prospects of trade in their respective districts. The report mentions that newly appointed consular officers, before proceeding to their posts, are now attached for a short period of service to the commercial-intelligence branch, and that arrangements have been made by the Foreign Office for commercial attachés and occasionally consular officers to visit the chief manufacturing and commercial centers of the United Kingdom from time to time in order to become better acquainted with the kind of information which it is desirable should be furnished for the benefit of British trade.
>
> The committee have continued the policy of sending out commercial missions for the collection of information abroad and in the colonies. Missions of this character have been dispatched in Australia and New Zealand, Canada and Newfoundland, Asiatic Turkey, and to Siberia, Persia, and South Africa. The committee describe the methods adopted to keep up to date the information acquired by means of special inquiries, and to provide, in the self-governing colonies and other portions of the Empire, a permanent service of commercial intelligence similar to that already afforded by the consular officers in foreign countries.

Trade commissioners have been appointed for the colonies to investigate and report on trade conditions and requirements. Correspondents who are themselves engaged in or possess practical experience of the trade and industries of a colony have been appointed to answer inquiries and furnish information on their own initiative with regard to trade matters. There are eight of these correspondents in Canada alone, in addition to the commissioners.

Among the tariff work is mentioned that of assisting "in the arrangements which have been made for the issue by chambers of commerce in the United Kingdom of certificates of value for goods exported to the United States." It is stated that there are now nearly 50 representatives of the United Kingdom distributed throughout the oversea portions of the Empire, the greater number of whom devote the whole of their time to regulating the work of local correspondents. India is excepted from this service, as it has a Department of Trade and Commerce and Industry at Calcutta, which places at the disposal of the commercial-intelligence branch every kind of information secured.

It is worthy of notice that foreign governments are taking more active interest than ever before in securing information to extend their trade. The British Government has appointed a number of new consuls to take the place of foreigners who were employed in the capacity of consular agents, and a number of permanent "trade commissioners" have been appointed to do work similar to that done by the "special agents" of the United States. In addition, the Board of Trade, which is the branch of the British Government that has charge of trade matters, sends out missions for the purpose of extending foreign commerce. Such missions visited Mesopotamia, Syria, and Palestine, but the results were made known only to certain chambers of commerce and private firms "likely to be specially interested."

Another feature of the work of the Board of Trade is that of keeping a register of names of firms and individuals who want to receive the confidential information issued by the Board in regard to foreign trade opportunities. Applicants to receive this information must be subscribers to the weekly Board of Trade Journal, for which 6 cents a copy is charged, and be otherwise approved. Formerly this confidential information was supplied only to chambers of commerce, and in that way did not reach nonmembers. To remove the objection made to this method the special register was devised, and on June 30 there were 1,321 names on the list. This special register system, to which a small cost is attached, seems to be a good way to disseminate commercial information which, in the case of the Bureau of Manufactures, has often proved of great value.

The British Government also requires each person designated to serve abroad as a consul to spend three months' time in the office of the commercial-intelligence branch of the Board of Trade, to become properly equipped for the work. It would certainly greatly improve the work of our consuls if they were required to spend at least a month in this Bureau inspecting copy, learning how properly to prepare it for publication, and ascertaining the common defects in regard to the information furnished, the lack of proper explanation and conversion of foreign weights, measures, etc., and the annoyance and loss caused by the delay in submitting reports.

Other governments have taken measures to increase the information obtained for trade purposes in foreign countries. The German Chancellor recently made an appeal for the appointment of a trade expert in Canada, and through commercial attachés to consulates Germany obtains information in addition to consular reports on any subject on which information is wanted. France has similar methods of obtaining information under the direction of the Minister of Commerce.

One defect in the system of securing commercial information for the Bureau of Manufactures relates to the Philippine Islands, Hawaii, Alaska, and Porto Rico. No reports come from these possessions, though information is often requested by manufacturers and others. There should be some system, similar to that of the United Kingdom, through which commercial information could be furnished.

ASSISTANCE FROM AMERICAN LEGATIONS.

A number of valuable commercial reports were received from American legations during the year. These were usually of a confidential nature, and the information was disseminated through confidential circulars. Details of the proposed $1,000,000 waterworks at Bangkok were thus given by Hon. Hamilton King, the minister to Siam, while the legation at Habana in one communication told of the Cuban requirements for revenue-cutter boats, and in another of a big telephone concession to be granted for the entire island. Hon. Charles H. Sherrill, American minister at Buenos Aires, described a plan he was elaborating in conjunction with the North American Society there to enable American manufacturers who have been shut out of the Argentine market through inability to conform to the credit system to get cash for their goods. Minister Edward C. O'Brien sent a cablegram from Montevideo that the Uruguayan Government desired a loan of $6,000,000 for public works. The Bureau also received details of the plans for the proposed constructions, and conveyed this information with Mr. O'Brien's cablegram in a confidential circular to American firms likely to be interested. Advance information from the American legation at Santiago was also passed out in a confidential circular concerning the projected trip abroad of a flag officer to purchase ships for the Chilean Navy. Hon. S. R. Gummere, American minister at Tangier, forwarded a report on proposed public works in Morocco, which the Bureau also handled confidentially in the interests of American export trade.

SERVICE OF SPECIAL AGENTS.

In the work that the Department is doing to promote foreign trade special note should be made of its success in opening up markets abroad to manufacturers who heretofore have limited their efforts to supplying the home demand. The increased consumption of cereals in the United States has lessened the proportion of our agricultural exports, but this loss has been more than made up by the increase in exports of manufactured articles. Highly organized industries with large capital have for years cultivated the foreign markets, yet it is only recently that the smaller ones have sought to do so. It is a well-demonstrated fact that when the American manufacturer wants a market for his products in other countries he sets about obtaining it, but inexperience makes him enter upon the task somewhat vaguely. The commerce of the last few years has shown that a very large number of mills and factories for the first time are seeking systematic sales abroad with a view to gaining and holding a permanent foreign trade. It is no reflection on the intelligence of their managers that they are not on an equal footing with the manufacturers of Europe who have been engaged in foreign trade for generations. The Bureau of Manufactures, by the machinery it now has in operation, is able to help them to overcome this deficiency in experience and to afford them information, both of a general character and of a specific nature.

One effective means of doing this is through the special agents, who visit all parts of the world and report on trade conditions, the products and resources of the various countries, their purchasing power, their consumption of foreign goods, their business customs, the peculiarities of their markets, their transportation facilities, and their fiscal systems. The general educational information which is thus gathered is commercial geography in its broadest sense. The methods of investigation are most thorough. The reports cover both the sales methods of foreign competitors and the trade requirements of foreign consumers. The agents come into personal contact with both producers and consumers. An example of the information that is afforded regarding the world's competition for the world's markets may be found in the investigations conducted in the various European countries. Europe is not only a market for American products in itself, but it is also a competitor in supplying large bodies of population, such as the Orient and Latin America. These two rich commercial fields are covered from time to time by the special agents of the Department, who make careful investigations into both the opportunities for the sale of American goods and the consumption of all foreign-made goods, as well as the methods by which they are supplied. At the same time the special agents in Europe, being on the ground, are able to report how the European manufacturers are supplying the markets of the Orient and of Latin America, many of these reports necessarily being of a confidential character, which are used by the Bureau in a manner hereafter explained. The commercial conditions in the Orient and in Latin America being fully described by the special agents who visit those sections, while other agents tell of the European methods of manufacture and sales for these countries, the American manufacturer has before him full information concerning the nature of the market and what his competitors are doing in supplying it.

A valuable function of the special agents is the elasticity of the system, which, by enabling them under the direction of the Department to travel from point to point as new conditions arise, keeps them in constant touch with the commercial opportunities of the whole world, and enables them to report promptly on fresh developments. This mobility makes them commercial scouts. They supplement and reenforce the diplomatic and consular officers, who, stationed at fixed points, are a permanent source of information in regard to the countries and the districts to which accredited.

The usefulness of the special agents would be further enhanced if, after their return from trips abroad, provision were made by which they could spend a part of their time in contact with the commercial organizations and manufacturers' associations in the United States. Personal intercourse of this kind would enable the Department to obtain a more definite understanding of the lines of intelligence which the manufacturers find most useful, and at the same time would give them the benefit of the suggestions which the special agents are able to make out of their experiences in the investigations abroad.

It is respectfully suggested that Congress be asked to grant the Department authority to direct special agents, upon returning from tours of investigation abroad, to visit industrial centers of the United States for the purpose of conference with representative manufacturers and merchants, and also that they may be directed to hold such conferences with a view to obtaining information as to the needs and requirements of industrial activities prior to their departure for foreign fields.

It is also suggested that the designation "special agent" be changed to "foreign trade agent" or "trade commissioner." Experience has made it clear that the title "special agent" creates the impression, on the one hand, that these officers are representatives of private commercial houses who have been sent abroad to buy or sell; and on the other, that they are secret-service officers of the United States. In either case they labor under disadvantages which require lengthy explanation to overcome.

WORK OF THE TARIFF DIVISION.

The tariff work of the Bureau was carried on under an appropriation of $5,500 "to enable the Bureau of Manufactures to collate and arrange the tariffs of foreign countries in form for distribution, to be printed in the English language, utilizing as far as practicable the reports of the International Bureau for the Publication of Foreign Tariffs." While the purpose of Congress in providing for this work was the publication of foreign tariffs in the English language, the exigencies of the public service and the constantly increasing requests from business men for information in regard to foreign tariffs, which are not available for distribution in the form of printed documents, have made it necessary to enlarge the scope of the work of the Tariff Division.

As stated in previous reports, experience has demonstrated the inadvisability of relying upon the translations of the Brussels Bureau in preparing for use by this Department translations of foreign tariffs, if they are to be done with that promptness and accuracy demanded by the importance of these public documents and the magnitude of the interests which depend upon them. Furthermore, the phraseology and the terms employed in the Brussels publications are such as are in vogue in European countries and are not current in the United States.

The work of translating the tariff laws of all the foreign countries in their entirety is of such magnitude as would require the entire time of a greater number of persons than comprised the personnel of the Tariff Division during the year, or of that force augmented by two additional clerks provided by the appropriation act for the current year. Under the conditions described only a small part of the time of the three men engaged could be devoted to the work of translation. In view of these limitations the Bureau's output of published tariffs is believed to be creditable to the force employed, the publications comprising the following: The complete customs tariffs of Italy, the United Kingdom, Australia, Turks and Caicos Islands, Bahamas and British West Indies, the preferential tariff of Brazil, export tariffs of foreign countries, foreign tariffs on petroleum and petroleum products, supplements to the customs tariffs of Cuba and Mexico, embodying the latest changes in the respective tariff laws of those countries, and a compilation of the laws of foreign countries governing the admission of commercial travelers and samples of merchandise.

A new departure in tariff publications of this Bureau, which should be extended to cover every country in the world, is the publication of pending tariff bills in foreign countries. Such publication enables the business interests of the United States to anticipate possible changes in the tariffs of foreign countries and is helpful to the legislative and executive departments of the Government, enabling them to take such timely action with reference to pending measures as may seem wise in each case. During the past year the following publications of this character were issued: Proposed new customs tariff of France, which is still pending in one branch of the French Parliament, and of which two editions were published embodying changes recommended by the tariff commission subsequent to the introduction of the bill in the French Parliament; commercial convention between France and Canada, containing the tariff reductions granted by each of these countries to the other, and which it is expected will shortly be put into effect; proposed new customs tariff of Argentina, embodying proposed changes in articles of special importance to our trade with that country.

EXTENT AND VARIETY OF TARIFF WORK.

Diplomatic and consular officers are responding to the requests of the Bureau by sending a constantly increasing number of reports concerning tariff legislation in foreign countries to which they are respectively accredited. In preparing these reports for publication great care has to be taken to insure accuracy of translation of the laws and the decrees which refer to them. During the past year reports as to tariff legislation were published in Daily and Monthly Consular and Trade Reports covering the following 49 countries and dependencies, some of which were represented by several reports: Argentina, Australia, Austria-Hungary, Barbados, Belgium, Brazil, British South Africa, British North Borneo, British India, Bulgaria, Canada, Chile, China, Colombia, Costa Rica, Cuba, Denmark, Dominican Republic, Egypt, Formosa, France, Germany, Guatemala, Haiti, Holland, Italy, Ireland, Japan, Malta, Mexico, Morocco, Nicaragua, Paraguay, Persia, Peru, Portugal, Panama, Russia, Saigon, Salvador, Servia, Sierra Leone, Spain, Sweden, Switzerland, Turkey, United Kingdom, Uruguay, and Venezuela.

More than 150 foreign countries and colonies have separate tariffs, and the official organs of each have to be scrutinized for changes in rates, decisions affecting the applications of rates of duty, ministerial decrees as to customs regulations, port charges, etc. These official organs, some of them published monthly, some weekly, and a great many daily, are the chief sources of information on the subjects dwelt upon. They have to be scanned for information relating to tariffs, which is clipped and arranged in files for ready reference, and so much of it as is of special interest is immediately translated and published in Daily Consular and Trade Reports. During the last year, as in the years preceding, the force in the Tariff Division was inadequate to cover this part of the work as thoroughly as appears desirable, attention being given to the most important countries only, information as to other countries being derived from the reports published by the leading European countries, especially those of Great Britain, Germany, and France. It is hoped that the increase in the tariff staff made possible by the increased appropriation for the current fiscal year will enable the Bureau to get its information directly from the official organs of each country.

The Bureau is daily in receipt of numerous inquiries from individual business men and firms as well as from commercial organizations in regard to foreign tariffs and customs laws and various regulations governing the admission of American food products, drugs, chemicals, machinery of every kind, and other merchandise, as well as the treatment of commercial travelers and samples. These inquiries cover a great variety of agricultural and manufactured products shipped by American houses to every part of the world, and frequently require the compilation of long tables of rates of duties. More than 1,500 such inquiries were answered during the fiscal year. As the work of preparing special compilations of tariffs on various products is of a very painstaking character, and owing to the urgency of the inquiries has to be given preference over preparation of manuscript, it takes up the greater part of the time of the tariff force, leaving little time for publication work proper.

For nearly two-thirds of the last fiscal year the Bureau was called upon to render special service in connection with the revision of the United States tariff. For the information of committees of Congress, and also upon request from Senators and Representatives, several statements and a number of special tables having reference to foreign tariff laws were prepared. A number of these compilations were published as Senate and House documents.

The enactment of the new tariff law of the United States, with its maximum and minimum provisions and the changes it will bring in its train in our tariff relations with foreign countries, has already resulted in numerous calls upon the Bureau for information, and it is anticipated that during the current year a great part of the time of the tariff force will be taken up with this class of work.

Attention was invited to this feature of the work in the last annual report. It was pointed out that the facilities of the Bureau were in marked contrast with the care bestowed upon this class of work by those countries which are the principal rivals of the United States in the world's markets, the United Kingdom, France, and Germany employing from five to ten times the number of persons in the collection, compilation, and dissemination of tariff information that are employed by the United States. The result of this thoroughness on the part of the nations named is that not only tariff changes which take place in foreign countries, but all proposed changes are promptly reported and brought to the attention of the commercial community.

The appropriation of $10,000 submitted in the estimates for the ensuing fiscal year is the minimum amount necessary to enable the

Bureau to keep up with the current work. A much larger sum, however, is needed to put the tariff work on the plane on which it is placed in the leading foreign countries.

INTERNATIONAL EXPOSITIONS.

Attention is invited to the importance and value of international expositions as a means for forcefully and convincingly making known the merits of natural and manufactured products, and as effective agencies in the promotion of trade. This is a field which has been neglected by American manufacturers and which has received little attention from the Government, yet it presents opportunities and furnishes facilities for the introduction of new trade and expansion of the sale of manufactures already known to the market. The physical presence and practical demonstration of a machine, or the products of machinery, by competent representatives will do more to illustrate the purpose and capacity of objects exhibited than could possibly be accomplished by merely an inanimate exhibition or volumes of descriptive matter. The great value of these exhibitions in the promotion of trade is recognized by foreign governments and appreciated by their people engaged in industrial and commercial activities. The British Government has established a special division in the commercial branch of the Board of Trade to look after British commercial interests at foreign expositions and to arrange for securing advantageous positions for British exhibits and their proper display and exploitation. This official activity and supervision has proved highly beneficial to British manufacturers by increasing their sales abroad. Similar interest is exhibited by other governments in international expositions, and in national expositions when they are of a character to warrant it. With the exception of the United States, every commercial nation of importance has organized a permanent commission to look after international expositions.

A number of international expositions will be held during the year 1910, at most of which American products should be exhibited. There will be 27 such expositions in Europe, of which 8 will be in Germany and 4 in Russia. In Belgium and France there will be 3 each, Austria-Hungary, England, and Switzerland 2 each, and Holland, Italy, and Norway 1 each. Eight will be held in Latin-American countries—3 in Argentina, 2 in Chile, 2 in Mexico, and 1 in Colombia. Special attention is directed to those to be held at Berlin, Germany; Ekaterinoslav and Omsk, Russia, and Buenos Aires, Argentina, each of which offers special opportunities for American exhibitors. The exposition at Berlin from May to July will be confined to products from the United States. This will be conducted under most favorable auspices for American manufacturers. The expositions at Ekaterinoslav, July 14 to October 8, and at Omsk, September 15 to October 16, will offer facilities for the exhibition of agricultural machinery and implements, mining machinery, railroad supplies, scientific appliances, and other products in the manufacture of which Americans excel. The expositions at Buenos Aires also offer special advantages to exhibitors of American products. The rapid development taking place in Russia and Argentina, especially in agriculture, suggests the advisability and necessity of American manufacturers of farming machinery and vehicles, as well as of some other classes of machinery, providing for large and complete exhibits in those countries, in both of which the excellence of American machines is well known and appreciated. The fact should not be overlooked that the production of wheat both in Russia and in Argentina now equals that of the United States, and that the export of wheat by Argentina to Europe last year exceeded that exported from the United States.

In the following statement are included expositions to be held in foreign countries in 1910 and succeeding years, so far as reported to the Bureau. American manufacturers have been officially invited to participate in most of them, and the Bureau has been supplied with the regulations which will govern some of them, copies of which, so far as available, will be sent to applicants.

Place.	Time.	Nature.
EUROPE		
England:		
London	June, 1910	International Congress of Chambers of Commerce.
Liverpool	1910	Royal Show (practical agricultural work and experiments).
Germany:		
Berlin	May to July, 1910	American Exposition.
Do	Mar. 19 to Apr. 3, 1910	International Motor Boat Exposition.
Do	June 1 to July 18, 1910	International Tourist and Travel Exposition.
Do	Mar. 18 to May 15, 1911	International Exposition of Clay, Cement, etc.
Breslau	May, 1910	International Machinery Exposition (held there every year).
Frankfort	April, 1910	Exposition of office furniture and business equipment.
Do	May 15 to July 15, 1910	Exposition of Traffic, Sports, and Appurtenances.
Hamburg	Last half of June, 1910	German National Agricultural Fair.
Leipzig	Spring, 1910	Annual Wholesale Fair (at which 100 American firms exhibited last year).
France:		
Aix	Feb. 17-20, 1910	International Exposition of Olive Trade.
Havre	September, 1910	International Aviation Exposition.
Hyeres	Mar. 19 to Apr. 20, 1910	International Agricultural Exposition.
Roubaix	Summer of 1911	Exposition Internationale du Nord de la France. (American exhibits officially invited.)
Belgium:		
Brussels	April to November, 1910	World's Exposition.
Do	During World's Exposition	International Congress on Numismatics and Medalist's Art.
Do	May 14 to 22, 1910	Quinquennial International Botanical Congress.
Do	May 1 to Nov. 13, 1910	International Exposition of Fine Arts.
Austria-Hungary:		
Vienna	1910	Second International Congress of Refrigerating Industries.
Budapest	May, 1910	Horticultural Exposition.
Holland:		
Haarlem	April and May, 1910	Flower and Bulb Exposition (held every five years; will be on an elaborate scale).
The Hague	1913	World Exposition for celebration of reestablishment of National Independence.
Italy:		
Florence	Dec. 15, 1909, to June 30, 1910	Fifth Exposition of Italian Artists (American exhibits invited).
Rome	April to October, 1911	International Art Exposition.
Turin	.....do	World Industrial and Labor Exposition.
Russia:		
Ekaterinoslav	July 14 to Oct. 8, 1910	South Russia Exposition of Agriculture, Commerce, and Industry.
Odessa	May 15 to Oct. 10, 1910	Factory, Industry, and Arts Exposition.
Omsk	Sept. 15 to Oct. 16, 1910	Western Siberian Exposition.
Riga	July 28 to Sept. 28, 1910	International Photographic Exposition.
Norway:		
Bergen	June 1 to Sept. 15, 1910	Tourist and Domestic Exposition.
Switzerland:		
Berne	July 4 to 16, 1910	International Railway Congress (American delegates selected).
St. Gall	June and July, 1910	International Fire Exposition.

Place.	Time.	Nature.
ASIA.		
India	Opens December, 1910	Agricultural Exhibition (to be the most elaborate ever held in India, with an agricultural court showing practical working and tests of all modern mechanical appliances).
China:		
Nanking	May to October, 1910	First Nanking Industrial and Commercial Exposition. (American space arranged, 10 American firms participating.)
Japan:		
Fukuoka	Mar. 11 to May 9, 1910	Industrial Exposition. (American machinery exhibits invited.)
Tokyo	1917	World Exposition.
Java:		
Sourabaya	July, 1911	East Indian Fiber Congress and Exhibition—machinery, etc. (American exhibits invited.)
AFRICA.		
Ibadan, Lagos Colony	December, 1910	Agricultural Exhibition (at which American consuls urge exhibits of American farm tools).
Cape Town	1912	International Exhibition.
Algiers	do	International Colonial Exposition.
NORTH AMERICA.		
Canada:		
Winnipeg	1912	Selkirk Centennial Exposition.
Mexico:		
Mexico City	September, 1910	Medical Congress (as culmination of centennial celebration throughout the country).
Puebla	Fall of 1910	Centennial Exhibition.
Guadalajara	do	Agricultural Exposition.
CENTRAL AMERICA.		
Panama:		
Panama City	1915	World's Fair (preliminary plans).
SOUTH AMERICA.		
Argentina:		
Buenos Aires	May to November, 1910	International Railway and Transport Exposition.
Do	June 3 to July 31, 1910	International Agricultural and Live Stock Exposition.
Do	May, 1910	International Exposition of Hygiene.
Chile:		
Valparaiso	Spring, 1910	Exposition of American Products.
Santiago	September, 1910	Fine Arts Exposition (Chilean Centennial).
Colombia:		
Bogota	July 20 to Aug. 7, 1910	First International Students' Congress of America.

PUBLICATIONS OF THE BUREAU.

COMMERCIAL RELATIONS.

The prompt publication of consular and other reports designed to promote trade is of supreme importance, as much of their value is lost by long delays. Each consul is required to make an annual report, in which he sums up the conditions in his district, gives the statistics of trade for the year, particularly with the United States, and describes the outlook for increased trade. These annual reviews are in addition to the reports on different branches of current trade which the consul may make during the year. The "annuals" are published in book form under the title of "Commercial Relations." All of the consuls do not make such reports, though required to do so by regulations of the Department of State. The number of reports received, however, is much larger than formerly, though the value of the work is greatly lessened because of the long delay necessary in its preparation and owing to the tardiness of some of the consuls. Moreover, only 1,000 copies of the publication are issued; and after the various public officials have been supplied there are comparatively few copies available for distribution to manufacturers and others.

To overcome objections to the delay in the issue of "Commercial Relations," the annual consular reports for the calendar year 1907 were issued in pamphlet form by countries. As soon as a sufficient number of reports were received from any one country, they were issued under the name of that country, supplemented in some cases by official and other trustworthy matter containing valuable information to exporters. In this way months of time were saved in issuing some of the reports, and manufacturers and exporters were supplied with information much earlier than was possible under the old method. Many letters were received commending this method of issuing the reports. Through a desire to avoid excessive expenditures for printing, however, the new method was abandoned. The annual reports for 1908 are therefore being prepared for issue in the usual form, and will comprise two volumes. These will be ready for distribution in the early part of 1910.

CONSULAR AND TRADE REPORTS.

The circulation of Daily Consular and Trade Reports has advanced so rapidly under the increasing demand for it by manufacturers and others engaged in foreign trade that it has been impossible for many months to supply a copy to any applicant without removing from the list the name of a person who had been receiving the publication. The law limits the circulation to 10,000 copies, and as there are five or six times that many manufacturers producing, to some extent, for export, to say nothing of the large number of exporting houses, consuls, newspapers, etc., who feel entitled to it, and who would be benefited by the information it supplies, there is necessarily much difficulty in explaining why requests for the publication can not be complied with. The limitation as to the number of copies that can be issued should therefore be removed or largely extended.

CONFIDENTIAL CIRCULAR SERVICE.

As "Confidential circulars," information of a confidential character relating to special business opportunities offered in foreign markets, accompanied frequently with specifications describing the character of work to be done, blueprints, and photographs, is sent out to representatives of particular industries. In a number of instances the sending of this information has resulted in securing orders for the sale of American merchandise. The circulars embrace a very wide scope, and have related to gold dredging and hydraulic machinery, portable houses, motor boats, sawmills, electric plants, elevators, hardware, footwear, and numerous other articles. Blueprints have covered harbor and other public works, involving the expenditure of many millions of dollars; municipal buildings, naval supplies and armament, etc., and the detailed requirements were thus laid privately before American business firms in a position to undertake such contracts. Samples of flour were also sent out, including the grades used in several countries in northern Africa. Through this medium, and the names of importers who were willing to consider American flour, our millers introduced their product into that section of the world. An Ohio company, building woodworking machinery, stated in a letter to the Bureau that such confidential information had enabled it to secure an order from Siberia for 16 carloads of machinery. A consulting waterworks engineer wrote that in the past two years his foreign business had increased 80 per cent through the use of Daily Consular and Trade Reports. Another American engineer advised that through the same medium he had been able to meet a Greek who intrusted him with certain negotiations for the Turko-Servian canal project, which may also result in the sale of a large amount of American steel products and contractors' plant.

The confidential bulletin series are apart from the confidential circulars. The bulletins are printed in monograph form and in 1909 comprised the following:

6. Freight Rates on Flour to Manchester. By Special Agent M. H. Davis.
7. American Flour and Dutch Bulbs: Showing the basis for retaining the Netherlands market for flour. By Special Agent M. H. Davis.
8. Flour Duties in Europe: Showing discriminating rates by various countries. By Special Agent M. H. Davis.
9. Agricultural Machinery Markets in Various Countries. By American consular officers.
10. Statements by Commercial Houses in Jamaica and Switzerland in reference to American Goods. By Consul Frederick Van Dyne, of Kingston, and Consular Clerk Arnold T. Zuber, of Basel. [Letters received from manufacturers express the belief that this class of work has been among the most successful efforts ever put forth by consular officers.]

EDITORIAL WORK AND MONOGRAPHS.

The editorial work of the Bureau has grown to proportions that require additional force to properly and expeditiously handle it. In addition to the editing of reports from consular officers and special agents for use in Daily Consular and Trade Reports and their subsequent revision, classification, and indexing for publication in the Monthly, considerable time and labor must be expended in the preparation of monographs, a feature of the Bureau's work which is especially helpful to the particular industries to which the monographs relate. Dissemination of the information contained in these monographs not only increases efficiency but tends to economy in the cost of publication.

During the year monographs bearing the following titles were issued:

1. Cotton Goods in Latin America. Part I—Cuba, Mexico, and Central America. By Special Agent W. A. Graham Clark. 80 pages.
2. Manufacture of Air-Nitrate Fertilizers. By Consul-General Henry Bordewich, of Christiania, Norway, and Consul W. H. H. Webster, of Niagara Falls, Canada. 16 pages.
3. German Iron and Steel Industry. By Special Agent Charles M. Pepper and Consul-General A. M. Thackara, of Berlin. 76 pages.
4. Lace Industry in England and France. By Special Agent W. A. Graham Clark. 60 pages.
5. Manufacture of Woolen, Worsted, and Shoddy in France and England, and Jute in Scotland. By Special Agent W. A. Graham Clark. 144 pages.
6. Machine Tool Trade in Germany, France, Switzerland, and the United Kingdom. By Special Agent Capt. Godfrey L. Carden. 248 pages.
7. Machine Tool Trade in Belgium. By Special Agent Capt. Godfrey L. Carden. 96 pages.

8. Shoe and Leather Trade in Cuba and Mexico. By Special Agent Arthur B. Butman. 24 pages.
9. Cotton Fabrics in Middle Europe—Germany, Austria-Hungary, and Switzerland. By Special Agent W. A. Graham Clark. 176 pages.
10. Flour and Wheat Trade in European Countries and the Levant. By Special Agent M. H. Davis. 168 pages.
11. Commercial Courts in Europe. By American consular officers. 30 pages.
12. Zinc Industry in Mexico. By American consular officers. 14 pages.
13. Agricultural Implements in Europe, Asia, and Africa. By Special Agent Roland R. Dennis. 88 pages.
14. British Iron and Steel Industry, and Luxemburg Iron and Steel Wages. By Special Agent Charles M. Pepper. 40 pages.
15. Police and Work Dogs in Europe. By Consul-General Henry W. Diederich, of Antwerp, and Consul H. Abert Johnson, of Liege. 16 pages.
16. Soya Beans and Products. By American consular officers in Europe and Asia. 36 pages.
17. Jute Industry. A compilation of reports reprinted from various previous consular and special agents' reports. 40 pages.

NOMINAL CHARGE FOR BUREAU PUBLICATIONS.

In relation to the various publications of the Bureau, all of which are of peculiar interest and value to those actively engaged in business pursuits, it is respectfully suggested that the object of publication would be more effectively attained and a large expenditure of money saved to the Government if a charge equal to the cost of issue were made for them. The demand for both Daily and Monthly Consular and Trade Reports is certain to grow in proportion as knowledge of their value expands and the trade of the country advances. In case increased gratuitous circulation should be authorized, a corresponding increase in the expenditure of public money would follow without fully satisfying the popular demand for the publications. So long as there remains a limitation on the issue of these regular publications of the Bureau general dissatisfaction will continue, and with good reason, on the part of those whose requests are denied. To gratuitously issue and distribute an unlimited number of the Daily and Monthly would be impolitic and unwise; yet there is no escape from such issue if the Department is to be relieved from the embarrassment of being forced to withhold from one citizen what it freely gives to others. A nominal charge would remedy this condition, enable the Bureau to supply the publications to those for whose information and benefit they are primarily intended, save a large and constantly increasing expenditure of public money, and add to the efficiency of the service now being performed.

In like manner the business interests would be better served if all the publications of the Bureau, including reports of special agents and consular officers prepared for the benefit of particular classes, the text of foreign tariffs and subsequent changes in rates of duty and methods of administration, etc., were sent only to those to whom they would have value and who would be willing to pay for the cost of publication.

INSECURE AND INSUFFICIENT PACKING.

As a result of the efforts of the Bureau to effect an improvement in the packing of goods for shipping, and to secure more direct service by agents, some beneficial results are noticeable. A monograph on the subject has been prepared which it is hoped will lead to further reform. In some countries, particularly in Central America, where transportation is largely on the backs of mules, it is necessary to have the packing as light as possible consistent with strength, and in such form that packages may be readily adjusted to the animals. Then, too, in many countries duties are collected on goods according to their weight, including the packing, which makes it important in such cases to have packages as light as possible. But strength is necessary in all cases, and great losses have been sustained in our freight trade as a result of poor packing and the insufficient strength of the coverings. No article has suffered greater loss from insufficient covering than raw cotton. The contrast between cotton packed in the United States and that packed in Egypt has been very striking, and by no means creditable to producers and shippers of the United States. Reform in this matter is a necessity often emphasized in the reports of consuls and special agents. It is estimated that the loss from insecure and antiquated packing of cotton in the United States will average 3 pounds per bale. The loss on cotton exported exceeds that average. The crop of 1908 aggregated 13,432,131 bales, and that of 1909 it is estimated will approximate 11,000,000 bales, aggregating for the two years upward of 24,000,000 bales of 500 pounds each. The average price of cotton for 1908 was 8.7 cents, and for 1909, 9.9 cents. A loss of 3 pounds per bale resulting from bad packing, therefore, placing the average price at 9 cents per pound, represents an aggregate money loss for the two years of about $6,500,000, or $3,250,000 for each year, the responsibility for which loss may be properly charged to carelessness of American producers.

Another oft-repeated complaint is that concerning the lack of proper steamship communications, especially with South American countries. The roundabout way in which American goods are carried to many foreign countries, together with the necessary transshipment, are a great impediment in the efforts to extend foreign trade. Whatever method is necessary to correct that deficiency should be adopted at as early a date as possible.

MOVEMENT OF FOREIGN COMMERCE.

The total foreign trade of the United States for the year ended June 30, 1909, aggregated $2,974,931,328, a decline from the preceding year of $80,183,810. The imports reached $1,311,920,224, an increase of $117,578,432 over the preceding year; but the exports, which amounted to $1,663,011,104, showed a decline of $197,762,242. The excess of exports over imports was $351,090,880, a decline of $315,340,674 in such excess. There was a decline in the imports of nearly all nations in the year under review, but the proportionate share of the United States in the imports of other countries, as a rule, was even greater than in the prosperous year of 1907, which would seem to show that there would be an increased demand for American products with a revival in the trade of foreign countries, providing proper means are taken to place American goods in such markets. Anticipated tariff legislation by Congress had some effect on foreign trade, but imports were larger just after than immediately before the passage of the tariff act of August 5, 1909.

For the fiscal year manufactures and materials for manufactures combined formed 74.14 per cent of the imports and 72.78 per cent of the exports. Manufactures ready for consumption formed 16.87 per cent of the total domestic exports in 1889, but in 1909 they reached 26.87 per cent. Comparatively little is done by our Government, as compared with European nations, to promote exports of manufactures, but the growing trade in that class of merchandise shows that much more might be accomplished by individual effort.

The following table, prepared from reports of the Bureau of Statistics, shows the movement in exports of domestic merchandise for the five years ended June 30, 1909, from which the progress of manufactures in the foreign commerce of the country may be studied:

	1905.	1906.	1907.	1908.	1909.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Foodstuffs, partly or wholly manufactured	283,064,680	347,385,462	345,706,609	331,961,663	302,555,341
Manufactures for further use in manufacturing	209,361,544	226,210,513	259,414,784	261,105,883	231,186,607
Manufactures ready for consumption	402,064,030	459,812,656	480,708,667	489,469,958	440,229,407
Total manufactures	894,490,254	1,033,408,631	1,085,830,060	1,082,537,504	973,971,355
Foodstuffs, crude, and food animals	118,185,098	177,216,467	167,348,227	189,051,824	135,693,409
Crude materials for use in manufacturing	472,665,309	500,536,700	593,145,135	556,681,462	520,907,436
Miscellaneous	6,403,980	6,791,584	7,394,612	6,515,567	7,783,393
Total domestic exports	1,491,744,641	1,717,953,382	1,853,718,034	1,834,786,357	1,638,355,593
Foreign merchandise exported	26,817,025	25,911,118	27,133,044	25,986,989	24,655,511
Grand total exports	1,518,561,666	1,743,864,500	1,880,851,078	1,860,773,346	1,663,011,104
Total imports	1,117,513,071	1,226,562,446	1,434,421,425	1,194,341,792	1,311,920,224
Total foreign trade	2,636,074,737	2,970,426,946	3,315,272,503	3,055,115,138	2,974,931,328
Excess of exports	401,048,595	517,302,054	446,429,653	666,431,554	351,090,880

Respectfully submitted.

JOHN M. CARSON,
Chief of Bureau.

To Hon. CHARLES NAGEL,
Secretary of Commerce and Labor.

REPORT

OF THE

COMMISSIONER OF NAVIGATION

REPORT

OF THE

COMMISSIONER OF NAVIGATION.

Department of Commerce and Labor,
Bureau of Navigation,
Washington, November 10, 1909.

Sir: I have the honor to submit herewith my annual report.

By statute it is the province and duty of the Department of Commerce and Labor to foster, promote, and develop the foreign and domestic commerce, the shipping and fisheries industries, and the transportation facilities of the United States. The law requires the Commissioner of Navigation to report in detail the increase of vessels of the United States, and to " investigate the operations of the laws relative to navigation, and annually report to the Secretary of Commerce and Labor such particulars as may, in his judgment, admit of improvement or may require amendment."

Much of this report is devoted to a consideration of methods employed by maritime nations which promote foreign commerce and shipping by means of subsidies, usually under the name of ocean-mail contracts. In fact, however, many foreign subsidized steamship lines no longer furnish the quickest means of transporting the mails. The capitals of northern Europe can send letters to Asia and Australia more quickly by the trans-Siberian railroad or by the transcontinental railroads of North America, with proper trans-Atlantic and trans-Pacific steamship connections, than they can send them by the Suez route. The coming opening of the Panama Canal will still further change the situation. While such subsidies originally were for ocean-mail purposes, their character has changed considerably with changes in the world's transportation routes. Their purposes now are commercial, political, and military. They are adopted by other maritime powers as legitimate and effective instrumentalities for pushing trade, especially in South America and Asia, where international competition grows keener every year. They are accepted as necessary obligations by every other power which possesses over-sea territory and islands, such as our own country has acquired latest among nations. In nearly every considerable conflict beginning with the Crimean war (excepting wars in which Prussia has been involved) they have demonstrated their value as essential factors in military operations at sea and ashore. That value never was greater than in the wars of the last fifteen years.

While subsidies serve these large public purposes, incidentally they promote shipping and shipbuilding, and in these results this Bureau is concerned. The fact that American shipping in foreign trade does not grow has long been familiar to all. Our disadvantages in that line of activity and our advantages are generally understood. Neither are greater or less than were the disadvantages and advantages which were met and used when, twenty-five years ago, we set out to become a first-class naval power. By fixing attention on all the large purposes to be served, that end has been satisfactorily attained, except in an important respect—the merchant marine as contributory in men, ships, and shipyards to the Navy. Competent authorities, including the Admiral of the Navy, urge complete attainment.

STATISTICS FOR THE YEAR.

On June 30, 1909, the merchant marine of the United States, including all kinds of documented shipping, comprised 25,688 vessels of 7,388,755 gross tons. On June 30, 1908, it comprised 25,425 vessels of 7,365,445 gross tons. The following table shows the geographical distribution, motive power, material of construction, and trade of vessels of the United States for the fiscal year 1909 in comparison with similar data for the year 1908, and also the construction for the two years.

COMPARISON OF MERCHANT MARINE OF 1908 AND 1909.

Classification.	1908.		1909.	
GEOGRAPHICAL DISTRIBUTION.	*Number.*	*Gross tons.*	*Number.*	*Gross tons.*
Atlantic and Gulf coasts	17,241	3,500,932	17,203	3,500,394
Porto Rico	72	5,619	83	8,740
Pacific coast	3,195	943,354	3,378	915,357
Hawaii	45	18,960	43	19,120
Northern lakes	3,172	2,729,169	3,199	2,782,481
Western rivers	1,700	167,411	1,782	162,663
Total	25,425	7,365,445	25,688	7,388,755
POWER AND MATERIAL.				
Sail:				
Wood	10,174	1,516,009	9,580	1,465,446
Metal	126	245,061	132	245,630
Total	10,300	1,761,070	9,712	1,711,076
Steam:				
Wood	9,112	1,176,832	9,783	1,157,510
Metal	1,814	3,534,342	1,858	3,591,714
Total	10,926	4,711,174	11,641	4,749,224
Canal, wood	746	82,469	745	80,951
Barges:				
Wood	3,325	730,117	3,449	760,465
Metal	128	80,615	141	87,039
Total	3,453	810,732	3,590	847,504
Grand total	25,425	7,365,445	25,688	7,388,755

COMPARISON OF MERCHANT MARINE OF 1908 AND 1909—Continued.

Classification.	1908.		1909.	
TRADE.				
Registered:				
Sail—	*Number.*	*Gross tons.*	*Number.*	*Gross tons.*
Wood	495	213,688	448	185,728
Metal	26	55,149	22	45,330
Total	521	268,837	470	231,058
Steam—				
Wood	329	67,433	349	71,474
Metal	149	531,304	149	507,052
Total	478	598,737	498	578,526
Barges—				
Wood	572	67,284	644	72,277
Metal	20	5,210	21	5,644
Total	592	72,494	665	77,921
Total registered	1,591	940,068	1,633	887,505
Enrolled and licensed:				
Sail—				
Wood	9,679	1,302,321	9,135	1,281,064
Metal	100	189,912	107	198,954
Total	9,779	1,492,233	9,242	1,480,018
Steam—				
Wood	8,783	1,109,399	9,431	1,084,690
Metal	1,665	3,003,038	1,712	3,086,008
Total	10,448	4,112,437	11,143	4,170,698
Canal, wood	746	82,469	745	80,951
Barges—				
Wood	2,753	662,833	2,804	687,924
Metal	108	75,405	121	81,659
Total	2,861	738,238	2,925	769,583
Total enrolled and licensed	23,834	6,425,377	24,055	6,501,250
Grand total	25,425	7,365,445	25,688	7,388,755
CONSTRUCTION DURING THE YEAR.				
Geographical distribution.				
Atlantic and Gulf coasts	665	209,778	582	108,904
Porto Rico	10	109	8	85
Pacific coast	359	57,050	276	22,759
Northern lakes	216	341,165	174	100,402
Western rivers	207	6,114	207	5,940
Total construction	1,457	614,216	1,247	238,090
Power and material.				
Sail:				
Wood	134	31,981	132	20,965
Metal	....	....	9	7,985
Total	134	31,981	141	28,950
Steam:				
Wood	791	38,999	754	25,066
Metal	132	442,625	67	123,142
Total	923	481,624	821	148,208
Canal, wood	46	4,970	21	2,292
Barges:				
Wood	337	88,249	251	52,844
Metal	17	7,392	13	5,796
Total	354	95,641	264	58,640
Total construction	1,457	614,216	1,247	238,090

ANALYSIS OF THE YEAR'S CONSTRUCTION.

During the past fiscal year 1,247 vessels of 238,090 gross tons were built and documented in the United States, compared with 1,457 vessels of 614,216 gross tons for the previous fiscal year. Of this year's total, 136,923 gross tons were built of steel. The construction for 1908 was the largest in our history, while the construction for the past fiscal year was the smallest since 1898. The sharp decline in shipbuilding had been anticipated and was due partly to local causes and partly to the general business depression throughout the world, in which the United States shared. Thus shipbuilding in the United Kingdom dropped from 1,580,000 tons in the calendar year 1907 to 914,000 tons in 1908. The salient features of the year's construction readily appear from the following table of vessels of 1,000 gross tons or upward built and documented during the year, these 31 vessels aggregating only about 50 per cent of the total construction, showing that our great shipyards on the seaboard were without commercial work last year and dependent on navy contracts.

VESSELS OF 1,000 GROSS TONS AND OVER BUILT IN THE UNITED STATES AND DOCUMENTED DURING THE YEAR ENDED JUNE 30, 1909.

Name.	Gross tons.	Where built.	Name.	Gross tons.	Where built.
SEABOARD.			GREAT LAKES.		
Steel steamers.			*Steel steamers.*		
Mohawk	4,623	Philadelphia, Pa.	Shenango	8,047	Ecorse, Mich.
Belfast	2,157	Bath, Me.	Eugene J. Buffington.	7,528	Lorain, Ohio.
Total (2)	6,780		Alva C. Dinkey	7,514	Do.
			John J. Barlum	6,419	Do.
Steel ferry, river, and bay steamers.			La Belle	6,407	Do.
			Isaac M. Scott	6,372	Do.
			Stadacona	6,014	Ecorse, Mich.
New London	2,818	Wilmington, Del.	Denmark	5,448	Toledo, Ohio.
New York	2,818	Do.	Clifford F. Moll	5,141	Ecorse, Mich.
Trojan	2,571	Newburgh, N. Y.	Theodore H. Wickwire.	5,141	Do.
Robert Fulton	2,168	Camden, N. J.			
Southland	2,081	Newport News, Va.	Andrew S. Upson	4,442	Cleveland, Ohio.
Ferdinando Gorges.	1,312	Bath, Me.	North Sea	3,921	Ecorse, Mich.
			North Lake	3,861	St. Clair, Mich.
Total (6)	13,768		Alpena	2,886	Wyandotte, Mich.
			Wyandotte	2,095	Ecorse, Mich.
Steel barges.			United States	1,711	Manitowoc, Wis.
			Benj. Noble	1,481	Wyandotte, Mich.
N. Y. P. & N. Barge No. 16.	1,283	Camden, N. J.			
			Total (17)	84,428	
Wooden steamer.			*Steel barge.*		
Melrose	2,662	Oakland, Cal.	No. 21	1,029	Manitowoc, Wis.
Wooden schooners.			Grand total (31)	117,499	
Edward B. Winslow	3,424	Bath, Me.			
Fuller Palmer	3,060	Do.			
Stanley M. Seaman.	1,060	Rockland, Me.			
Total (3)	7,544				

The following summary of the vessels just named and of vessels of over 1,000 tons built during the preceding four years shows the changes in the larger forms of construction for the five-year period, attention being especially invited to the fact that during this period no square-rigged vessels have been built, and to the increase in steel construction, except last year, on the Great Lakes:

COMPARISON OF VESSELS OF 1,000 GROSS TONS AND OVER BUILT, 1905–1909.

Type.	1905.		1906.		1907.		1908.		1909.	
	No.	*Gross tons.*	*No.*	*Gross tons.*	*No.*	*Gross tons.*	*No.*	*Gross tons.*	*No.*	*Gross tons.*
Seaboard:										
Ocean steel steamers	7	39,996	3	15,344	22	82,612	25	101,658	2	6,780
Steel ferryboats, steam dredges river and bay steamers	[a]10	14,149	10	16,681	[b]6	9,217	4	5,726	6	13,768
Wooden steamers	....	....	....	....	2	8,185	2	2,246	1	2,662
Wooden schooners	14	29,104	4	8,330	3	6,624	4	10,187	3	7,544
Rigged barges	4	6,869	1	1,000	[c]3	4,698	....	....	....	....
Unrigged vessels	2	2,668	....	....	[c]2	2,514	[c]1	1,738	[c]1	1,288
Total	37	92,786	18	41,355	38	113,850	36	121,555	13	32,042
Great Lakes:										
Steel steamers	18	101,521	40	232,366	36	217,755	58	322,806	17	84,428
Unrigged vessels	....	....	....	....	....	....	....	....	[c]1	1,029
Total	18	101,521	40	232,366	36	217,755	58	322,806	18	85,457
Grand total	55	194,307	58	273,721	74	331,605	94	444,361	31	117,499

[a] Including ferry steamer San Francisco, built of wood.
[b] Including one western river steamer, 1,103 tons.
[c] Steel.

CONSTRUCTION DURING THE CURRENT FISCAL YEAR.

Shipbuilding has shared in the general revival of industry throughout the United States during the past few months, and both here and abroad the tonnage built during the current fiscal year will approach the normal output. Ordinarily our modern shipyards can launch, on the average, about 400,000 gross tons a year. While that amount will probably not be built this year, the product should exceed 325,000 tons, unless work now in progress or contracted for is delayed by strikes.

The present and recent conditions of the steel shipbuilding industry in the United States are shown by the following table, giving the number and tonnage of steel vessels under construction or under contract on the dates named.

COMPARISON OF VESSELS BUILDING, 1900–1909.

Date.	Merchant.				Government.		Total.	
	Lake.		Seaboard.					
	Number.	*Gross tons.*	*Number.*	*Gross tons.*	*Number.*	*Tons.*[a]	*Number.*	*Tons.*
August 15, 1900	20	70,119	48	207,561	47	113,829	115	391,009
June 15, 1901	26	81,780	63	273,865	71	281,148	160	636,793
July 1, 1902	39	124,537	65	222,949	67	269,890	171	617,376
July 1, 1903	30	109,020	58	146,655	47	334,147	135	589,822
July 1, 1904	[b]1	400	56	94,588	38	331,435	95	426,423
July 1, 1905	27	104,067	49	86,836	39	308,702	115	499,605
July 1, 1906	33	175,472	78	159,299	29	237,814	140	572,585
July 1, 1907	50	253,949	84	149,524	45	151,993	179	555,466
July 1, 1908	....	....	13	14,775	82	136,091	95	150,866
July 1, 1909	18	41,395	52	127,458	52	164,184	117	333,032

[a] Displacement.
[b] During the summer of 1904 contracts for lake shipbuilding were not made until late in the season.

In accord with the custom of the Bureau for some years past, American builders of steel vessels were requested to make a return showing the steel merchant vessels under contract or under construction at their respective establishments at the beginning of the current fiscal year. The Navy Department, the Revenue-Cutter Service, the Light-House Board, and other branches of the Government engaged in operating vessels for public purposes were requested to furnish a similar statement of vessels building or under contract in private yards for their service on that date. The details of these statements are tabulated in Appendix E.[a] The following is a summary:

NUMBER AND TONNAGE OF STEEL MERCHANT AND GOVERNMENT VESSELS UNDER CONSTRUCTION IN AMERICAN SHIPYARDS ON JULY 1, 1909, WITH CAPITAL INVESTED AND MEN EMPLOYED.

	Capital.	Men.	Merchant ships building.		Government vessels building.		Merchant capacity.	
			No.	Tons.	No.	Tons.	No.	Tons.
SEACOAST.								
Merchant and Government.								
Pusey & Jones Co., Wilmington, Del	$1,000,000	600	3	550	2	1,114	10	20,000
Fore River Shipbuilding Co., Quincy, Mass	4,800,000	4,000	1	4,500	13	[b] 22,226	([c])	([c])
Moran Co., Seattle, Wash	2,500,000	1,000	1	1,838	2	([c])	4	16,000
New York Shipbuilding Co., Camden, N. J	10,000,000	4,000	10	26,185	6	40,751	([c])	70,000
Newport News Shipbuilding and Dry Dock Co., Newport News, Va	([c])	5,000	14	59,100	6	[b] 22,226	10	50,000
Maryland Steel Co., Sparrow Point, Md	2,000,000	1,500	6	23,500	8	33,600	4	40,000
Total	[b] 20,300,000	16,100	35	115,673	32	[b] 119,917	[b] 28	[b] 196,000
Merchant only.								
Harlan & Hollingsworth Co., Wilmington, Del	1,500,000	1,800	3	4,438	....	....	15	15,000
T. S. Marvel Shipbuilding Co., Newburgh, N. Y	300,000	300	2	440	....	....	([c])	5,000
John H. Dialogue & Son, Camden, N. J	([c])	200	2	505	....	....	([c])	3,000
The Risdon Iron and Locomotive Works, San Francisco, Cal	([c])	([c])	2	500	....	....	([c])	([c])
Burlee Dry Dock Co., Port Richmond, N. Y.	1,000,000	1,000	7	2,097	....	....	16	5,000
W. & A. Fletcher Co., Hoboken, N. J	([c])	([c])	1	3,800	....	....	([c])	([c])
Total	[b] 2,800,000	[b] 3,300	17	11,780	....	....	[b] 31	[b] 28,000
Government only.								
William Cramp & Sons Ship and Engine Building Co., Philadelphia, Pa	([c])	([c])	....	....	11	[b] 39,771	([c])	([c])
Bath Iron Works, Bath, Me	750,000	1,000	....	....	5	3,626	([c])	10,000
Union Iron Works, San Francisco, Cal	5,000,000	1,250	....	....	2	([c])	5	10,000
Ellicott Machine Co., Baltimore, Md	([c])	([c])	....	....	1	750	([c])	([c])
Total	[b] 5,750,000	[b] 2,250	....	....	18	[b] 43,397	[b] 5	[b] 20,000
GREAT LAKES AND WESTERN RIVERS.								
Racine Boat Manufacturing Co., Muskegon, Mich	([c])	([c])	....	....	1	660	([c])	([c])
Howard Ship Yards Co., Jeffersonville, Ind	([c])	([c])	....	....	1	210	([c])	([c])
American Shipbuilding Co., Lorain, Ohio.	([c])	1,700	5	34,277	....	....	9	48,700
Johnson Bros., Ferrysburg, Mich	100,000	90	5	840	....	....	([c])	1,000
Dubuque Boat and Boiler Works, Dubuque, Iowa	([c])	75	1	80	....	....	2	900
Detroit Shipbuilding Co., Detroit, Mich.	1,428,000	2,000	2	6,198	....	....	5	35,000
Total	[b] 1,528,000	[b] 3,865	13	41,395	2	870	[b] 16	[b] 85,600

[a] Not printed in this volume. See note on page 459.

[b] Incomplete.

[c] Not reporting.

NUMBER AND TONNAGE OF STEEL MERCHANT AND GOVERNMENT VESSELS UNDER CONSTRUCTION, ETC.—Continued.

	Capital.	Men.	Merchant ships building.		Government vessels building.		Merchant capacity.	
			No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
REPORTING NO VESSELS UNDER CONSTRUCTION.								
American Shipbuilding Co., Cleveland, Ohio	(a)	2,100	....	....	....	....	3	18,800
Delaware River Iron Ship Building and Engine Works, Chester, Pa	(a)	(a)	....	....	....	....	(a)	(a)
Arthur Sewall & Co., Bath, Me	(a)	(a)	....	....	....	....	(a)	(a)
Riverside Iron Works, Charleston, S. C	(a)	(a)	....	....	....	....	(a)	(a)
Chicago Shipbuilding Co., Chicago, Ill	(a)	(a)	....	....	....	....	(a)	(a)
Duluth Dry Dock Co., Duluth, Minn	(a)	(a)	....	....	....	....	(a)	(a)
John N. Robins Co., Brooklyn, N. Y	(a)	(a)	....	....	....	....	(a)	(a)
Quintard Iron Works, New York, N. Y	(a)	(a)	....	....	....	....	(a)	(a)
Starin Shipyard and Iron Works, Port Richmond, N. Y	(a)	(a)	....	....	....	....	(a)	(a)
Spedden Shipbuilding Co., Baltimore, Md.	(a)	(a)	....	....	....	....	(a)	(a)
Buffalo Dry Dock Co., Buffalo, N. Y.	(a)	600	....	....	....	....	4	15,000
Port Huron Shipbuilding Co., Port Huron, Mich	(a)	(a)	....	....	....	....	(a)	(a)
Superior Shipbuilding Co., West Superior, Wis	(a)	(a)	....	....	....	....	(a)	(a)
Toledo Shipbuilding Co., Toledo, Ohio	(a)	(a)	....	....	....	....	(a)	(a)
The Atlantic Works, East Boston, Mass	....	....	....	....	....	....	....	....
Total	(a)	[b]2,700	....	....	....	....	[b]7	[b]33,800
SUMMARY.								
Seacoast:								
Merchant and government	$20,300,000	16,100	35	115,673	32	119,917	28	196,000
Merchant only	2,800,000	3,300	17	11,780	....	....	31	28,000
Government only	5,750,000	2,250	....	....	18	43,397	5	20,000
Great Lakes and western rivers	1,528,000	3,865	13	41,395	2	870	16	85,600
No construction	(b)	2,700	....	....	....	....	7	33,800
Total	[b]30,378,000	[b]28,215	65	168,848	52	[b]164,184	[b]87	[b]363,400

[a] Not reporting.

[b] Incomplete.

Besides the navy vessels included in the tables above, the battle ship *Florida*, 21,825 tons displacement, of 20 knots speed, is being built at the navy-yard at New York, and two navy colliers, each of 16 knots speed, 12,585 gross tons, are building at the New York and Mare Island navy-yards.

TRADE OF OCEAN STEAMERS.

The following table shows the ocean steamers of 1,000 gross tons and over built in the United States during recent years according to the trade for which they were originally designed. The subsidy bill generally known as the "Frye-Hanna-Payne bill" passed the Senate March 17, 1902. Whatever view be taken of its economic merits, that bill showed its efficacy, for in anticipation of its passage the 17 transoceanic steamships indicated in the first three columns of the table were built or begun, while since its failure in the House none have been built.

Of the 6 trans-Atlantic steamers, the *Finland*, *Kroonland*, and *Samland* have recently been transferred to the Belgian flag, and the *Missourian*, *Virginian*, and *Massachusetts* are in the coasting trade by way of Tehuantepec. Of the trans-Pacific ships, the *Sierra*, *Sonoma*, and *Ventura* are laid up at San Francisco, the *Shawmut* and *Tremont* were sold to the Government for the Panama trade, and the *Dakota* was wrecked. The *Korea*, *Siberia*, *Mongolia*, *Manchuria*, and *Minnesota* are in trans-Pacific trade.

TRADES OF OCEAN STEAMERS OF OVER 1,000 GROSS TONS BUILT, 1901–1909.

Year.	Foreign.								Coasting.				Total.	
	Trans-Atlantic.		Trans-Pacific (direct).		Trans-Pacific (via Hawaii).		West Indies, Mexico, Venezuela.		Hawaii.		Other.			
	No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
1901					8	18,495	4	17,121	4	22,492	14	37,134	25	95,242
1902	1	12,760	2	19,212	1	11,276	3	5,353	2	13,079	12	47,095	21	108,775
1903	4	36,500			1	11,284			2	17,286	11	36,401	18	101,471
1904	1	7,914	1	20,714	2	27,276					3	15,407	7	71,311
1905			1	20,714							6	20,856	7	41,570
1906							2	12,414			1	2,930	3	15,344
1907							2	12,782	1	8,579	19	66,251	22	87,612
1908									4	21,477	21	80,181	25	101,658
1909											2	6,780	2	6,780
Total	6	57,174	4	60,640	7	68,331	11	47,670	13	82,913	89	313,035	130	629,763

OCEAN-MAIL SYSTEMS.

The weight of the ocean mails of the British Empire greatly exceeds the weight of the ocean mails of any other nation, the weight of the ocean mails of the United States ranking easily second. If the length of ocean-mail routes be considered, however, the difference between the British and American mails considerably lessens. The great volume of British international mails is carried across the Channel, a distance of only 20 miles, and then distributed throughout Europe. British mails even for Asia and Australia are taken across the Channel, thence by rail to the end of Italy, and begin their actual sea transportation 3,000 miles from England. The bulk of the mail exchanges of other European nations, of course, is carried by rail. All the mails of the United States for Europe must travel 3,000 miles across the Atlantic.

Within a few years the United States has acquired territory more or less remote from the mainland, and has brought under the American flag a larger number of distant people than under similar conditions are under any flag except the British, French, or Dutch. In population and trade importance the colonies of the German Empire, for example, may not be compared with Porto Rico, Hawaii, the Philippines, Alaska, and the Canal Zone. A glance at any globe made in the last few years will show that for political reasons the United States has more need of a complete ocean-mail service under its own flag than any other nation except Great Britain. The same glance will show that geographically the United States, with its Atlantic and Pacific coasts, is better placed to use such an ocean-mail system of its own to push its foreign trade than are any of the nations using ocean-mail systems for that purpose, except Great Britain. Yet Germany, France, Italy, Austria-Hungary, Spain, the Netherlands, and of late years Japan have established ocean-mail systems of their own, more or less complete, at the cost needed to effect the result, while the United States, in spite of obvious political considerations and geographical advantages, having begun such a system in 1891, has halted for a dozen years to debate whether it is worth while to carry it out.

If this were a country where the economic doctrine of *laissez faire* was generally accepted, there would be a possible explanation, although the most consistent, continuous, and comprehensive application of ocean-mail subsidies has always been and is now by the British Empire, distinctively the leader among nations in free-trade policies. The United States, whatever the relative advantages to it of high or low tariff may be, for many years has been the leader among nations in the application of protectionist doctrine. The essence of that doctrine is that legislation shall undertake to create industrial enterprises which would not otherwise exist. Outside of its purely commercial phases the doctrine aims to secure more or less complete industrial independence through diversification of national products. Such considerations, as hinted, have carried little or no weight in the British Empire, whose subsidy policy is based on the higher considerations of imperial defense and independence; for whatever the purpose, among the results of ocean-mail subsidies are seamen and ships adaptable to military purposes, if necessary, and shipyards capable of building a navy. These considerations at least are entitled to some weight with Americans who do not accept the economic doctrine of international trade prevalent with us. They are entitled to even greater weight with those who are disposed to dwell on the distinction between federal and state powers, for while the States have their militia to which as auxiliaries to the army Congress makes annually a contribution of about a million dollars, the States under the Constitution can do practically nothing to promote merchant shipping in foreign trade, whence must come our auxiliary maritime line. Historically, from the time of Thomas Jefferson up to the preparation for our war between the North and South, the most earnest advocates of pecuniary national aid to American merchant shipping and the fisheries were those identified politically with free trade and states rights.

Up to 1890 our helplessness as a naval power was a possible explanation of our failure to provide an adequate American ocean mail system, but that reason no longer holds. By the harmonious action of men of all political beliefs in Congress we now rank as a naval power of the first class, and there is nowhere evident the disposition through niggardliness to lose that rank. The very fact, however, that that rank has been attained must raise questions in the minds of thoughtful men as to the future of our sea power. The most eminent naval writer of the generation has said:

> Can this navy be had without restoring the merchant shipping? It is doubtful. History has proved that such a purely military sea power can be built up by a despot, as was done by Louis XIV; but though so fair seeming, experience showed that his navy was like a growth which, having no root, soon withers away. But in a representative government any military expenditure must have a strongly represented interest behind it, convinced of its necessity. How such a merchant shipping should be built up, whether by subsidies or free trade, by constant administration of tonics or by free movement in the open air, is not a military but an economical question. (Influence of Sea Power upon History, Capt. A. T. Mahan, U. S. N., p. 87.)

AMERICAN OCEAN-MAIL PAY.

Under existing law and conditions our expenditures for ocean mails are about equally divided between American steamships and steamships of the great maritime powers—England, France, Germany, and Japan—which in most cases by the very terms of their mail contracts are constituted parts of their respective navies in the event of war. Under present conditions it is morally certain that this measure of dependence will increase. The following statements, compiled from the reports of the Post-Office Department, show the changes in our ocean-mail pay made between 1905 and 1908 (figures for 1909 being not yet available):

PAYMENTS TO AMERICAN AND FOREIGN STEAMSHIP LINES FOR TRANSPORTING OCEAN MAILS OF THE UNITED STATES, 1905 AND 1908.

Company.	Nationality.	Route.	Mail pay.	
			1905.	1908.
American ships:				
American Line[a]	American	Trans-Atlantic	$662,867	$737,332
New York and Cuba Mail[a]	do	Gulf of Mexico	203,280	203,115
Panama Railroad Company[b]	do	Caribbean	112,064	191,969
American Mail[a]	do	do	116,986	105,667
Red "D"[a]	do	do	107,458	105,128
Pacific Mail	do	Trans-Pacific	88,411	65,657
Oceanic[a]	do	do	341,982	37,962
Miscellaneous	do	Miscellaneous	33,068	20,425
Total			1,666,116	1,467,255
Foreign ships:				
Cunard	British	Trans-Atlantic	158,115	189,362
White Star	do	do	264,921	327,275
North German Lloyd	German	do	204,110	331,562
Hamburg-American	do	do Caribbean	78,756	90,920
Compagnie Générale Transatlantique.	French	Trans-Atlantic	50,868	78,705
Toyo Kisen Kaisha	Japanese	Trans-Pacific	2,797	23,986
Nippon Yusen Kaisha	do	do	3,881	16,002
Miscellaneous	Miscellaneous	Miscellaneous	135,716	170,220
Total			899,164	1,228,032
Grand total			2,565,280	2,695,287

[a] Contracts under act of 1891.

[b] Government line.

SUBSIDIES UNDER THE ACT OF 1891.

The expenditure of $1,467,255 in 1908 represents the entire amount paid by the Federal Government to American merchant ships, either in the form of subsidies under the act of 1891 or for ocean-mail pay. Of this amount $191,969 was paid to the steamship line to the Isthmus of Panama and the railroad, owned by the Government. Our Government, unlike any other government at the present time, maintains its own army transports and either builds its own colliers for the Navy or charters foreign colliers.

Under the ocean-mail act of 1891 American vessels, under contracts prescribing rigid requirements, are paid at fixed rates per statute mile outward bound. The American Line for 20-knot steamships to Southampton is paid $4 a mile, and in 1895 its fleet of four steamships surpassed all others in trans-Atlantic trade. The New York and Cuba Mail is paid $1 a mile for its steamships, 16 to 18 knots, to Cuba and Mexico, although the law permits $2 a mile; the American Mail and Red D are paid $1 a mile for the mails to Jamaica and Venezuela, 14-knot steamers (66⅔ cents for two 12-knot steamers), and the Oceanic (Spreckels) Line formerly was paid $2 a mile for 16-knot steamships carrying mails from San Francisco to Australia via Honolulu and Samoa. The line was abandoned in 1907, but one 14-knot steamship to Tahiti is still paid $1 a mile. All other payments are according to the weight of mails carried. American steamers are paid sea and inland postage amounting to 80 cents a pound for letters and post cards and 8 cents a pound for other articles. Foreign steamers are paid 35 cents a pound (4 francs a kilogram) for letters and 4½ cents a pound (50 centimes a kilogram) for other articles.

FOREIGN SUBSIDIES AND MAIL PAY.

The aggregate amount paid by foreign nations in the form of subsidies, ocean-mail pay, navigation, and construction bounties, admiralty subventions, naval-reserve appropriations, fisheries bounties, refund of Suez Canal tolls, and other forms of contribution, which directly or indirectly add to the volume of business under their respective national flags, is upward of $46,000,000 a year.

RECENT CHANGES IN LAWS AND CONTRACTS.

In the short time since the bill generally known as the "Frye-Hanna-Payne bill" failed to pass the House of Representatives there has been a general revision of the subsidies of nations. During the interval of our halt Great Britain has executed the new Cunard contract and put an "all-British" clause into her other principal mail contracts, Germany has increased the North German Lloyd subsidy, Japan has passed the law of April, 1909, Spain the law of June, 1909, Austria the law of February, 1907, and Italy is now revising her laws and mail-subsidy contracts. Holland, in 1907, subsidized for fifteen years a line to South America, and Norway is contemplating a subsidized line to the United States. In France revision of subsidies, bounties, laws, and contracts is almost incessant.

The following table and pages of explanation, with the statements in Appendix N,[a] are a short review of recent subsidy legislation abroad. The laws, regulations, contracts, and reports on which they are based were obtained by our embassies and legations abroad and are on file in the Bureau. They comprise over 1,000 pages in various languages, and only the briefest summary is possible within the limits of this report. Generally speaking, the nations of continental Europe own their railway systems, and governments, which fix freights and fares ashore, also fix maximum rates on their subsidized steamship lines. Military features, of course, are contained in nearly all the great foreign ocean-mail contracts, as in our law of 1891. Comparison of aggregate payments by nations and aggregate tonnage is not useful, for in the last analysis, natural conditions are, of course, more effective in securing results than is legislation. Large expenditures under unfavorable conditions produce less results than less expenditure applied to natural advantages. The essential fact remains that every nation actually expends sums in proportion to its resources much in excess of the expenditures of the United States, in order to secure under its own flag efficient means of communication by sea with other countries. Following is the summary:

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[a] Not printed in this volume. See note on page 459.

TABLE OF FOREIGN SUBSIDIES, MAIL PAY, BOUNTIES, ETC.

Great Britain and colonies:	
Subsidies and mail pay (British Postmaster-General, 1908)	$3,320,454
Cunard Admiralty subvention (1909)	729,000
Royal Naval Reserves (1909–10)	1,783,620
Canadian subsidies and mail pay (1910)	1,581,800
Canadian fisheries bounties (1909)	160,000
Australian and New Zealand subsidies and mails (1909)	1,263,600
Cape Colony subsidy (1909)	656,910
Jamaica subsidy (1909)	194,000
Total	9,689,384
France:	
Mail subsidies (1908)[a]	5,217,037
Navigation and *armament* (shipowners') bounties (1908)[a]	6,079,500
Shipbuilding bounties (1908)	2,007,200
Fisheries bounties	120,000
Total	13,423,737
Japan:	
Mail subsidies (new law, 1910)	4,379,000
Shipbuilding bounties (1908)	997,700
Fisheries bounties	37,000
Total	5,413,700
Italy:	
Mail subsidies (1908)	2,328,917
Navigation bounties (1909)	677,734
Shipbuilding bounties (1909)	866,266
Total	3,872,917
Spain:	
Mail subsidies (new law, 1910)	1,858,186
Navigation bounties (new law, 1910)	1,291.826
Shipbuilding bounties	Not ascertained.
Total	3,150,012
Austria-Hungary:	
Austrian-Lloyd subsidy (1908)	1,450,400
Suez Canal refunds (1908)	375,000
Navigation and shipbuilding bounties (1908)	880,000
Hungarian mail contracts (1908)	279,130
Total	2,984,530
Germany:	
Mail subsidies (1908)	1,706,460
Mail pay (1907)	594,569
Total	2,301,029

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[a] Including $153,665 bounties to Messageries Maritimes.

Russia:	
Subsidies (1908)	$1,543,578
Suez Canal refunds (1908)	334,750
Total	1,878,328
Norway:	
Mail subsidies (1908–9)	561,788
Trade subsidies (1908–9)	513,555
Tariff refunds (1908–9)	26,800
Total	1,102,143
Netherlands:	
Mail subsidies (1908)	841,827
Naval reserves (1908)	38,184
Total	880,011
Sweden:	
South American and Asiatic subsidies (1909)	140,000
Mail pay (1908)	137,752
State loans	Not ascertained.
Total	277,752
Denmark:	
Trade subsidies and harbor dues exemption (1902)	145,000
Belgium:	
Trade bounties (1908)	23,160
Pilotage refunds (1908)	32,810
Total	55,970
Portugal:	
Mail subsidy (1908–9)	50,000
Grand total	45,224,513

Outside of Europe and Japan subsidies and mail payments have been reported for 1908 to the Bureau as follows: Chile, $253,195; Mexico, $75,000; Egypt, $54,512; Brazil, $1,300,000; in all, $1,682,707, making with the above a total of $46,907,220. In 1908 the United States spent $43,588,012 for transporting mails on railroads and $34,355,209 for rural delivery.

GREAT BRITAIN.

The total expenditure last year for the British navy, including £7,545,202 for new construction, was estimated in this year's Admiralty statement at £32,319,500 ($157,072,770), including $1,783,620 voted for the training and maintenance of seamen on merchant steamships as naval reserves. The total expenditure by the British Empire, so far as ascertained, for subsidies, ocean-mail contracts, and Admiralty subventions (not including payments for merchant seamen as naval reserves just referred to) was $7,905,764. The item for merchant seamen may be viewed from two points, but for the present purpose it is retained in place as a naval appropriation. The Empire accordingly devotes in fact a sum for its merchant marine equal to about 5 per cent of its naval appropriations. Here it may be noted that Japan's naval appropriations for the current year are $35,870,061, while her subsidies to the merchant marine are $4,416,000, not including shipbuilding bounties, and Italy's naval appropriations for the current year are $30,229,754 and her ocean-mail contracts, navigation and shipbuilding bounties amount to $3,872,917, or in each case equal to over 10 per cent of naval appropriations. The sums comprising the British totals above are:

1. For foreign and colonial mail service to British ships, $3,320,454, reported by the British postmaster-general, excluding £4,293 paid to the American Line. (Report of British Postmaster-General, 1908.)
2. Subsidies and mail payments of the Dominion of Canada, aggregating $1,581,800.
3. Subsidies and mail payments of the Commonwealth of Australia and New Zealand, $1,263,600.
4. Mail subsidy of Cape Colony, $656,910.
5. Trade subsidy of Jamaica, $194,400.
6. Cunard admiralty subvention, $729,000.
7. Canadian fisheries bounties, $160,000.

Other small mail and trade subsidies are paid by British colonies, such as the annual payment of £5,000 ($24,300) for steam communication between Australia and the Fiji Islands, but in the aggregate doubtless such items would not add more than $150,000 or $175,000 to the total. Included in mail payments stated by the British postmaster-general are certain contributions by the colonies, such as $292,183 by British India for the Bombay mails. (For 1909 report just received see Appendix I.[a])

Whether Great Britain and other foreign nations pay subsidies has been a subject of debate in this country which has turned more on the definition of the word than on the essential political and commercial facts involved. Undoubtedly our very large appropriations for battle ships have stimulated American shipbuilding and have in fact created and maintained some of our principal seaboard shipyards. Such appropriations are for the national defense, yet in effect they operate as directly to encourage a domestic industry as do many paragraphs of our tariff law. If forced to it, we doubtless could buy war ships abroad, as do some nations, but it has seemed best to build them at home without regard to comparative cost. In the same manner it is doubtless true that the British ocean contract mail system, in operation in some of its features for seventy years, is primarily a political and military system, but it has none the less developed British shipbuilding and navigation and extended British commerce. Fair definitions of the word "subsidy" were given in the report of the House of Commons committee on steamship subsidies in 1902:

> The word "subsidy" in itself requires some elucidation. Bounty, subsidy, subvention, are all words denoting pecuniary aid. These terms are substantially interchangeable, but bounty is sometimes more expressly used for a payment made to encourage some branch of industry, trade, or agriculture, and is looked upon by many with greater suspicion, because the word also bears a meaning of generosity and liberality. Subsidy may have the same meaning, but it is sometimes employed to describe a payment made for value alleged to be fully received, as in a postal subsidy. Subvention has really the same mean-

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[a] Not printed in this volume. See note on page 459.

> ing as subsidy, but it is apparently thought to be more euphemistic and to create less prejudice, and the payments made by the Admiralty to secure the right to obtain mercantile ships for use in time of war are often characterized as admiralty subventions. But in point of fact bounties, subsidies, or subventions are all terms used for payments made for some kind of value received, irrespective of the policy which may be involved; in one case the carriage of mails or provision of cable communication, in another the maintenance of national defense, or it may be the encouragement of a trade; and it sometimes occurs that where a given sum is granted as a subsidy it is very difficult indeed to analyze it into its component parts and lay down that so much of it is paid as a postal subsidy, so much for admiralty purposes, or so much for the encouragement of trade. Ostensibly, only foreign subsidies usually aim at all these three requirements. British policy has usually hitherto been to subsidize ships for postal or admiralty purposes only, and to exclude all consideration of trade interests, but even in the British case rapid postal communication has mainly, and in fact necessarily, followed the lines of great commercial traffic.

Fulton's *Clermont* steamed up the Hudson in 1807, and trans-Atlantic steam navigation for commercial purposes began in 1838. At that time the steam tonnage of the United States (193,423 gross tons) was greater than the steam tonnage of the United Kingdom (74,684 net tons). Within three years Great Britain, by subsidies, began the establishment of steamship lines to North and South America, Asia, and Australia. The Cunard contract was signed in 1839, the Peninsular and Oriental contract in 1840, the Royal Mail and Pacific Steam Navigation contracts in 1841. These contracts, with modifications to suit the times, have been in force continuously, and taken together the subsidized ships constitute the framework of the British auxiliary navy. Past and present contracts have been reviewed or published in full in previous reports of this Bureau, and, without going into details, reference is made specially to the reports for 1899, 1901, and 1903. Regarded solely by themselves these contracts may be accepted in the sense given by one of our most careful students of economics (President Arthur T. Hadley, of Yale College):

> Of England's mail-contract system it may be fairly said: (1) That its aims are political and not commercial. It is a necessity for England to have constant communication with her colonies, and she has spent large sums for this object. It is almost equally important for her to have an efficient naval reserve and transport service, and she has made her mail contracts one among several means toward this end. (2) That the incidental commercial advantage to the subsidized companies has not been generally great except at a very early period of the system. This is evinced by the fact that rival unsubsidized lines have been equally successful and that the largest contracts have been on terms which made them a matter of indifference to the party receiving them.

Regarded in their relations to British industry and commerce, it is equally plain that the mail-contract system, together with necessary naval construction, helped to make Great Britain the principal shipbuilding country and has kept her in the lead in mercantile navigation. The entire willingness of Parliament to spend any amount necessary to reassert British supremacy on the Atlantic when the speed record had in fact been won by Germany and when there seemed to be reason to look for American legislation with a view to competition on the sea was shown by the terms of the Cunard contract of 1903.

The principal British ocean-mail contracts made for a term of years are as follows:

PRINCIPAL BRITISH OCEAN-MAIL CONTRACTS.

Company.	Route.	Duration.	Voyages annually.	Speed.	Subsidy.
				Knots.	
1. Peninsular and Oriental S. S. Co.	England-India-China-Australia.	1908–1915	104	15–18	£305,000=$1,484,130
2. Cunard S. S. Co.	England-New York	1907–1927	52	20–25	218,000= 1,060,788
3. Union Castle Mail S. S. Co.	England-South Africa.	1900–1910	52	16	135,000= 656,910
4. Elder Dempster Co	England-Jamaica	1901–1911	26	15	40,000= 194,640
5. Pacific Steam Navigation Co.	England-South America.	1900–1910	26	15	32,500= 158,145
6. Royal Mail S. S. Co	West Indies	1907–1917	26	14	25,000= 121,650
7. Orient Steam Navigation Co.	England-Australia	1910–1920	26	16	170,000= 827,220
Total					925,500= 4,503,483

For convenience the admiralty subvention of £150,000 and the mail subsidy of £68,000 to the Cunard Company have been stated together. For the same reason the Castle Mail contract with the Cape Colony, the Elder Dempster contract with Jamaica, and the Orient contract with the Commonwealth of Australia are included in the table.

The subsidy to the Peninsular and Oriental about suffices to pay the Suez Canal dues on all its ships. These dues in 1907 were £333,000, the subsidy £332,784. The entire fleet of the company does not, of course, participate in the mail contract. Ships built under the mail contract are subsidized for years, in time are superseded by better ships, and the older ships are elsewhere employed. So, too, the company has steamers mainly devoted to cargo. The British mails for Asia and Australia are sent across by Channel ferries to Calais, thence by rail to Brindisi, and thence by two small and fast Peninsular and Oriental steamers to Egypt, where they are put aboard the liners as they enter the Suez Canal. The contract calls for the following routes:

1. Once a week from Brindisi to Bombay (via the Suez Canal), calling at Aden, and from Bombay to Brindisi (via the Suez Canal), calling at Aden.
2. Once in every two weeks from Brindisi to Shanghai, calling at Aden, Colombo, Penang, Singapore, and Hongkong, and from Shanghai to Brindisi, calling at Hongkong, Singapore, Penang, Colombo, and Aden.
3. Once in every two weeks from Brindisi to Adelaide, calling at Aden, Colombo, and Fremantle, and from Adelaide to Brindisi, calling at Fremantle, Colombo, and Aden.

On the entire mileage from England the new subsidy for the Peninsular and Oriental works out at the rate of $2.40 per nautical mile outward for steamships which vary from 15 to 18 and 19 knots. Such ships under the American law of 1891 would be entitled to $2.30 a mile. Presented in another way, the subsidy of £332,784 in 1907 was about 8 per cent on £2,320,000 capital stock and £1,800,000 debentures; or, again, receipts less subsidy were £2,783,246, while expenses were £2,889,102, the subsidy thus being necessary to pay 3½ per cent interest on the bonds and any profit to the shareholders.

The principal features of the new twenty-year Cunard subsidy contract are generally understood, and the details were printed in the

Bureau's report for 1903 (pp. 48–52 and 224–268). The subsidy is equivalent to $20,000, in round numbers, for an outward voyage of 3,000 miles.

The ten-year contract with the Union-Castle Mail Steamship Company is in the name of the colony of the Cape of Good Hope, but is part of the imperial mail system. For a voyage every week the company receives annually $656,910, or $12,600 a voyage. As the distance from Southampton to Cape Town is as nearly as may be 6,000 nautical miles, the pay is as nearly as may be at the rate of $2.10 per nautical mile, compared with $2.30 which could be paid under our act of 1891 to steamships of from 16 to 18 knots speed, such as are employed in this service. The distance from New York to Buenos Aires (5,868 nautical miles) is nearly that from Southampton to Cape Town, and the two voyages offer other obvious resemblances as well as obvious differences. If $2.10 a mile be needed to maintain a first-class mail and passenger steamship line long established between England and her colonies in South Africa, it is plain that $2.30 could not suffice to establish at the outset a similar line from New York to Brazil or Argentina. For the crews the British ships must rely on the British labor market, the American ships on the American labor market, and no changes in legislation could fix American wages at the British level, even if anyone were disposed to make the effort. The trade of Cape Colony sets toward England; the passenger trade of South America sets toward Europe, and if it be desired to divert any portion of it to the United States sacrifice must be made in order ultimately to secure the benefits of such diversion. In fact, there are no means of travel between the United States and Brazil and Argentina comparable for a moment to the Castle Mail steamships, and there seems to be no likelihood of such means being established by foreign capital. The Castle Mail contract is in itself an exposition of reasons why the United States should increase the mail subsidies possible under the act of 1891 to American lines to South America.

Further evidence to the same effect is afforded by the contract of the colony of Jamaica with the Elder Dempster Company (Report for 1901, pp. 270–275). The sum of $7,500 a voyage is paid to British ships to divert trade to England which under normal conditions would come to the United States. The subsidy, of course, is one of the links by which the parts of the British Empire are bound together, but its trade features can not be ignored. Precisely the same line of argument, if it has merit elsewhere, would warrant the United States in much greater expenditures to unite more closely Hawaii, the Philippines, and Samoa to our Pacific coast. The Jamaica subsidy pays $1.80 a mile outward for 15-knot ships, to which we allow only $1.15.

The present Royal Mail contract is merely for connections among the lesser islands of the British West Indies, with incidental connections through the Isthmus with the west coast of South America. With the completion of the Panama Canal conditions will so change that this contract has scarcely temporary interest. Earlier contracts of the Royal Mail have been considered in other reports of the Bureau.

The new ten-year contract of the Commonwealth of Australia with the Orient Steam Navigation Company provides a subsidy of

$31,800 a voyage to give the Commonwealth, together with England's contract with the Peninsular and Oriental, weekly mail connections with Europe. The subsidy is in form a mail contract, but the expeditious route for the mails between Australia and the capitals of Europe is by fast steamer across the Pacific to San Francisco, thence by rail to New York, and thence by fast trans-Atlantic steamer. A few years ago there was an American ocean-mail line to Australia, and the mails were in fact dispatched by that route. The subsidy to be paid to the slower Orient steamship route is at the rate of $2.60 per mile (handicapped, however, by Suez Canal tolls), while the American line to Australia, stopping also at Honolulu, was paid $2.30. All the natural advantages favor an American trans-Pacific mail line to Australia as compared with a British line through Suez. We owe some consideration to Hawaii, which under our Constitution and laws probably can not be privileged to use Japanese subsidized mail steamers in the coasting trade. If we intend to keep our stations in Samoa, some steamship communication with them should be provided, for now there is virtually none. The payment of the Orient subsidy by Australia, coupled with a similar payment to the Peninsular and Oriental by England, in view of geographical considerations, would doubtless long ago have led any other of the maritime powers placed as is the United States to subsidize adequately a mail line to Australia, as even Germany, France, and Japan have done.

TRANS-PACIFIC SUBSIDY.

The situation has been appreciated by the Dominion of Canada and the Commonwealth of Australia, which jointly, in 1907, entered into a subsidy contract with the Union Steamship Company of New Zealand for a mail steamer once every four weeks between Sydney and Vancouver. The Canadian government pays £37,090 a year and the Australian government £2,048 a voyage, or £25,610 a year, in all, £62,700, or $304,722, annually. This subsidy is as nearly as may be equal to $299,862 paid by the United States under the act of 1891 to the Oceanic (Spreckels) Line from San Francisco to Australia. The distances by the two routes are substantially the same, as the American line made a slight diversion to Samoa; the British line to Fiji. The American contract, however, called for a voyage once in three weeks; the provincial contract once in four weeks. The American steamers were 16 knots; while the British ships are 14 and 15 knots, and new ships only are required to make 16 knots. As the British ships cost less to build and man, competition under such terms was not practicable. Whatever the purpose, a result of this British colonial subsidy has been to clear the South Pacific of American ships, to render more difficult even now the restoration of direct mail and trade relations between the United States and Australia, and to turn from the United States to Canada and its railroads, manufacturers, and merchants, not only Australian trade, but a share of our trade with Honolulu. To remove doubt on this score, the Canadian subsidy contract contains this clause:

> 7. The said steamships shall not, during the continuance of this contract, call at any port in or of the United States of America (Honolulu only excepted).

CANADA AND AUSTRALIA.

The Dominion of Canada, with total annual receipts aggregating $96,000,000, deems it wise to expend $1,581,800 on its steam mail services (see Appendix N[a]), and devotes the income from the Halifax award of $5,500,000 to bounties for the fisheries. Canada also in 1908 paid to the Allan Line a subsidy of $133,333 for a mail service to France.

In 1908 the joint contract between the Canadian Pacific Railway and Canada and the United Kingdom, by which a subsidy of £60,000 had been guaranteed for many years to the three Empress steamers of the corporation, was revised, and a new contract, to remain in force until April, 1911, was executed. Under this contract Canada pays annually £20,000 and the United Kingdom £25,000, in all $218,700. The mails are to be carried once in three weeks during the summer and once in four weeks during the winter, or 15 voyages a year. From Liverpool to Hongkong, by way of Quebec, the mail time is fixed at 818 hours, or by way of Halifax or St. John, in the winter, at 853 hours.

The Canadian budget for the year contains an appropriation of $600,000 for the subsidy to the Allan Line steamships for carrying the mails from Canada to Liverpool. The contract made in 1906 will expire in 1912, when it is to be renewed for five years. By it the company agrees to carry the mails weekly to Liverpool from Montreal during the summer and from Halifax when the St. Lawrence is closed by ice. At present the *Victorian* and the *Virginian*, 18-knot steamers of 10,000 gross tons, the best ships of the Allan fleet, and the Canadian Pacific steamers *Empress of Britain* and *Empress of Ireland*, each 14,200 gross, 20 knots speed, are employed. Under the contract, for each 18-knot voyage the company receives £3,000 ($14,580). The American Line, for its 20-knot steamships *St. Louis* and *St. Paul*, each 11,600 gross tons, now receives $14,557 a voyage under our mail act of 1891, Canada's pay being almost identical by coincidence, accidental or designed. The American ships are of the same average tonnage, 2 knots faster than the Allan liners, and the distance from New York to Southampton is 3,100 miles, compared with 2,772 from Montreal to Liverpool. When the Canadian voyage begins at Halifax the subsidy is reduced £500. In principle and in essential details the American and Canadian contracts seem similar, and no reason appears why the American proposition should be characterized in economics differently from the Canadian. In fact both are subsidies to promote shipping and trade, but for relatively the same expenditure the United States receives larger incidental benefits in the promotion of shipbuilding and in the military phases of navigation. The contract is interesting as evidence that Canada, with less resources than the United States, has gone further in the promotion of British shipping than our own country has been disposed to go in behalf of American shipping. According to the Canadian press, the Dominion parliament this winter may seek to induce two or more of the great British builders to establish shipyards in Canada.

Since 1908 Canada has paid an annual subsidy of $146,000 to the Elder Dempster Steamship Company under a five-year contract for a monthly "mail" line of 10-knot steamers from Montreal or Halifax to Cape Town, South Africa. The payment is thus $12,000 in round numbers for a voyage outward of 7,000 miles, or at a rate of $1.70 a mile. The United States does not consider a 10-knot ship a mail ship, and in fact the Canadian mails to South Africa could be carried much faster by subsidized Allan Line steamers to England or by rail to New York, thence by subsidized Cunarders to Southampton, and thence by the subsidized Castle Mail Line to South Africa. The Canadian subsidy, in fact, is a trade subsidy, and by its terms provides that shippers of Canadian goods and products "shall always have precedence for such Canadian goods and products over all other shippers." The contract, of course, requires the steamers to go "direct" to South Africa, thus excluding exports from the United States. The steamship company further is forbidden to use American coal, which could readily be obtained at Norfolk or Newport News, and is required in effect to take British coal in the West Indies, for among its terms the contract provides:

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[a] Not printed in this volume. See note on page 459.

> Subject to the due performance by the contractors of the obligations imposed on them by this contract, they shall be at liberty in sailing from the Canadian ports to the South African ports to call solely for the purpose of coaling at any ports not situate on the continent of America.

Canada also pays a subsidy of $50,000 on the Atlantic and $50,000 on the Pacific for monthly trade connections with Mexico. Ostensibly these are mail contracts, but, of course, Canadian mails for Mexico go by rail through the United States. The Elder Dempster Company holds the Atlantic contract, and T. H. Worsnop, of London, the Pacific contract. The Canadian subsidy in each case is conditioned on an equal subsidy from Mexico. On the Atlantic for each monthly voyage Canada pays $4,166.66 and Mexico an equal amount, the distance from Montreal, via Cuba, to Veracruz being 3,400 miles. The Canadian subsidy is thus at the rate of $1.20 a mile outward, and the joint subsidy is double that rate. The United States pays $1.15 a mile outward under the act of 1891 to the New York and Cuba Mail Steamship Company for carrying the mails to Cuba and Mexico. Its steamers are 17 and 18 knots and 6,000 gross tons. The subsidized British ships are 10 and 11 knots and from 2,000 to 4,000 gross tons. The terms of the Pacific subsidy for the British line from Vancouver to Acapulco and Salina Cruz are substantially the same as the Canadian-Atlantic. As the Mexican Government has reduced its subsidy to $25,000, Canada is considering an increase of its subsidy to $75,000. Canada also pays a subsidy of $65,700 for a British line to Jamaica, the contract containing this provision:

> The steamers employed in carrying out the provision of this contract shall not on any of their voyages either outwards or homewards call at any port in the United States of America.

The details of Canadian subsidies are to be found in the report of the Canadian department of trade and commerce, Part III, entitled "Subsidized Steamship Services." This valuable document of 127 pages is instructive to all, and especially to those believing that British ships and trade are not subsidized.

The Commonwealth of Australia, besides £170,000 to the Orient Steam Navigation Company, and £26,625 to the Union Steamship Company of New Zealand for its share in the Canadian mail contract, pays through its several states various smaller subsidies for mail and trade connections between the states and with New Zealand

and other islands of the Pacific, and with the East, the full details of which have not been ascertained, though they aggregate upward of $300,000 annually. Thus New Zealand pays $3,402 each for ten voyages ($34,020) of the Union Steamship Company from Wellington to Tahiti (2,380 miles) to connect with the Spreckels steamer from San Francisco to Tahiti (3,630 miles), which receives $42,180 from the United States. The New Zealand subsidy is at a higher rate than the American.

JAPAN.

Immediately after the war with China, Japan passed her navigation and construction bounty acts of October 1, 1896, which were printed in the Bureau's report for that year. In that report it was stated:

> Our maritime rank on the Pacific is now threatened by a new rival, Japan, which, under liberal and progressive laws, has just established a trans-Pacific steamship line to the United States, and with the cooperation of American capital is preparing to extend rapidly the service. * * * We have already seen the American flag almost wholly disappear from the mid-Atlantic, save as borne by the mail steamers of the American Line, and the figures just presented show that the carrying trade of the Pacific is rapidly slipping from us. * * * It seems reasonably certain that in the immediate future this trade will grow to great proportions. For the control of this trade the United States enjoys obvious natural advantages. The entry of Japan into competition for its control is a warning that a prescient nation appreciates opportunities for trade and maritime rank of which we have thus far been neglectful, and by progressive legislation hopes to overcome those advantages.

Since that time every opportunity for maritime growth has been improved by Japan. When her laws of 1896 went into operation she had 53 ocean steel steamships, aggregating 106,383 gross tons. That merchant fleet, almost wholly British-built, in large part had been assembled to meet the need of army transportation in the coming war, as five years before Japan had had only 13 ocean steel steamers of 27,701 gross tons. The Japanese list of merchant vessels for 1909 gives the names of 206 ocean steamships of over 2,000 gross tons, aggregating 725,010 gross tons, while since 1895 the entire commercial fleet of Japan has increased from 360,695 tons to 1,288,053 tons. The Japanese legislation of 1896 gave a double stimulus to domestic shipbuilding by providing construction bounties for steel steamships and marine engines built in Japan and by excluding from the navigation subsidies foreign-built ships over five years old. The current Japanese list shows 18 steel steamships, each over 6,000 tons, built in Japan, and practically all of her very large and fast ocean-mail steamships are now built at home. Last year the Mitsubishi yard, at Nagasaki, turned out the *Tenyo Maru* and *Chiyo Maru*, sister ships of 13,450 gross tons, 575 feet over all, with accommodations for 1,100 passengers, and capacity for 8,000 tons of cargo. These ships are propelled by triple screws driven by turbine engines, using liquid fuel, and have attained 21 knots speed. They are, of course, equipped with the Teishinsho wireless, and through bulkhead arrangements are practically unsinkable. They were built in two years, and for military purposes have no equals on the Pacific.

The Japanese shipbuilding bounty law provides a bounty of 20 yen ($10) per gross ton for steel steamships over 1,000 gross tons, which for ships like those described would amount to $130,000, and also 5 yen ($2.50) for each indicated horsepower developed by Japanese machinery, adding $75,000 more in these cases, thus entitling the ships to about $200,000 each on the completion of their trial trips.

While Japan has no considerable iron mines of her own, she can transport iron ore to her furnaces from the mines of southern China lying along the banks of the Yangtze River, by sail vessels, at lower rates of freight than those for which we can carry Lake Superior ore to Pittsburg. The development of the coal mines of Manchuria has begun. Indeed, Japan has already established herself as a builder of steel merchant steamships. That the Japanese legislation of 1896 has accomplished the results desired is shown by the facility with which she threw vast armies into Korea and Manchuria during the war with Russia, saving perhaps her future as a nation.

The appropriation in the Japanese budget for the year ended March 31, 1909, included the following in yen (yen=50 cents):

	Yen.
Shipbuilding bounties	1,995,400
Navigation bounties	3,483,955
Subsidy to European line	2,673,895
Subsidy to San Francisco line	1,013,880
Subsidy to Seattle line	654,030
Subsidy to Australian line	425,782
Subsidies to various lines to Korea, Dalny, China, and other Asiatic and domestic ports	2,118,713
Total	12,365,655

In order to reduce expenses, the Japanese diet last April revised both the shipbuilding-bounty act and the navigation-bounty act of 1896. The new laws will take effect January 1, 1910. These laws are printed in Appendix N.[a] The only material change in the shipbuilding-bounty act is to limit its benefits to steel vessels of over 1,000 tons. The minimum limit has been 700 tons. The navigation-bounty act is materially changed. The subsidies provided are restricted to steel steamships of over 3,000 gross tons and over 12 knots speed in regular communication with the United States, Europe, South America, and Australia. Senate Document No. 152, Sixty-first Congress, first session, contains a valuable report made to the State Department on this legislation. From this report it appears that beginning with 1910 Japan will expend 8,758,004 yen ($4,379,000) annually on its means of steamship communication with the continents named. The details of the future arrangements for the Australian line are not given, but the following table presents at a glance the services to be rendered on the five routes named:

SUBSIDIZED JAPANESE MAIL ROUTES.

Line.	Company.	Type ships.	Voyages per year.	Miles per trip.	Ships.			
					Number.	Speed.	Gross tons.	Total tonnage.
						Knots.		
Europe	Nippon Yusen.	Kamo Maru	26	25,000	11	15-16	6,600-8,600	84,600
San Francisco	Toyo Kisen	Tenyo Maru	15	15,000	3	21	13,500	40,500
Tacoma	Osaka Shosen.	New	26	12,500	6	14	6,200	37,200
Seattle	Nippon Yusen.	Aki Maru	13	12,500	3	15	6,400	19,200
South America	Toyo Kisen	New	6	25,000	3	18	5,200-9,300	23,800

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[a] Not printed in this volume. See note on page 459.

Contracts under the terms stated above will take the place of present contracts at the beginning of 1910. The present contract with the Australian line will not lapse until April, 1911, when a contract will probably be made with the Osaka Shosan Kaisha for three steamships aggregating 14,500 tons at an amount near the present sum, 473,092 yen. The following table shows at a glance the amount of subsidy in yen hereafter to be paid to each of the five principal lines, and the ordinary commercial receipts and expenditures of those lines as estimated by the Japanese authorities:

SUBSIDIES, RECEIPTS, AND EXPENSES.

Line.	Income.			Expenditures.			Net deficit.
	Receipts.	Subsidies.	Total.	Expenses.	Reserves and interest.	Total.	
	Yen.	*Yen.*	*Yen.*	*Yen.*	*Yen.*	*Yen.*	*Yen.*
Europe	5,756,091	3,226,794	8,982,885	6,850,212	2,385,762	9,235,974	253,069
San Francisco	3,900,000	2,680,687	6,580,687	3,870,000	2,891,560	6,761,560	180,873
Tacoma	1,562,000	1,210,740	2,772,740	1,778,509	1,200,636	2,979,145	206,405
Seattle	1,072,229	476,180	1,548,409	1,227,607	436,604	1,664,211	115,802
South America	777,200	690,511	1,467,711	849,040	808,399	1,657,439	189,728

Even with the large subsidies proposed, each line shows an apparent small deficit which can be overcome only by economy in administration. In the case of the lines to the United States our payments for American mails will reduce somewhat this deficit. We paid to the Toyo Yusen Kaisha $23,986 in 1908, and $16,002 to the Nippon Yusen Kaisha. The figures for 1909 will not be available for some weeks.

The figures show that in each case the Japanese Government apparently deems it justifiable to invest national capital in enterprises that otherwise would be losing and in fact would not be undertaken. The commercial receipts for the San Francisco line, for example, are estimated at 3,900,000 yen, while the expenses are 6,761,560 yen. The subsidy proposed is 2,680,687 yen, or $1,340,343. The subsidy is thus 40 per cent of the total receipts of the San Francisco line, and even more in the case of the new line to South America. At first blush the figures point to a commercial impossibility, but commercial results are not alone to be considered. In the United States, for example, second-class mail matter comprises 64 per cent of the weight of American mails, but yields less than 6 per cent of our postal revenues. The business and domestic correspondence of the country, which contributes 75 per cent of our postal revenues but amounts to only 13 per cent of the weight of the mails, is thus taxed for the benefit of second-class matter. As a commercial proposition the postal subsidy to newspapers and magazines needs only to be stated to fall of its own weight, yet, as has been pointed out by the Postmaster-General:

> The charge for carrying second-class mail matter was intentionally fixed below cost for the purpose of encouraging the dissemination of information of educational value to the people, and the benefit of the cheap rates of postage is passed on to the subscriber in a lower subscription price than would otherwise be possible.

The advantages which Japan expects to derive from these investments in the way of insurance against war, the development of shipbuilding, and the promotion of commerce are palpable, even though they can not be expressed precisely in yen or dollars. Even the commercial return of well-conducted steamship enterprises to governments which aid them is considerable. Thus, in 1893 the British Government contributed £353,873 to the total receipts of £2,356,820 of the Peninsular and Oriental Steamship Company. In 1906 its subsidy was still £350,246, but the receipts had risen to £3,046,437. The increase represents an actual cash return in British business done and British labor employed quite apart from the large national interests served by the maintenance of this company, one of the props of the British Empire.

The subsidy for the Toyo Kisen Kaisha is to be 2,680,687 yen annually for 15 voyages from Hongkong to San Francisco, equivalent to $89,356 a voyage. The distance for the round trip is almost exactly 15,000 miles, or 7,500 miles outward bound. The subsidy, accordingly, is at the rate of nearly $12 per nautical mile one way, compared with the rate of $4.60 provided by the American ocean mail act of 1891 for steamships of 20 knots or over, like the *Tenyo Maru* and *Chiyo Maru*, already briefly described, which are on this route. This particular subsidy is the highest paid by any nation, being slightly above the current Cunard subsidy. That subsidy works out at the rate of about $7 per mile for the *Lusitania*, *Mauretania*, and the two slower and smaller steamships needed for the weekly mails to New York. Proportionately divided among the four ships, however, the British subsidy to the two great trans-Atlantic liners would be close to that paid to the Japanese trans-Pacific ships. While the British Government practically built the two Cunarders and presented them to the company, the Japanese Government paid about $200,000 each in construction bounties to the Toyo Kisen's ships and agrees to pay each over $400,000 annually for at least five years.

The new Japanese subsidy for 26 voyages to Tacoma is 1,210,740 yen, or $23,284 a voyage. As the distance outward bound is 6,250 nautical miles, the subsidy is equivalent to $3.72 per mile. The steamers are 14 knots speed, which, under the American ocean mail act of 1891, would be entitled to $1.15 a mile. In the same manner the Seattle subsidy is 476,180 yen for 13 voyages, or $17,930 a voyage, the distance being substantially the same as to Tacoma. The rate per mile outward, accordingly, is equivalent to $2.86. The ships are to be 15 knots, and under the American law could be paid at the rate of $1.15. That the Japanese subsidy for 15-knot steamships to Seattle is at a lower rate than for 14-knot steamships to Tacoma may be explained in part by the fact that the Seattle contract is awarded to the established Nippon Yusen Company, while the larger Tacoma contract was made with the Osaka Shosan, which has hitherto operated mainly in Asiatic waters and is just venturing a regular line to North America to hasten Japanese maritime supremacy on the Pacific.

Beginning with January 1, 1910, the Japanese Government will thus spend $2,183,000 annually on its steamships in trade with the Pacific coast of the United States, including Hawaii. These ships will make 54 voyages a year, so that every week it will be possible to come from or go to Japan under the Japanese flag. Even a cursory glance at the foregoing tables of these routes shows the care and exactitude with which this comprehensive project has been worked out. The contracts call for only twelve steamships, but it has been a uniform result of the subsidy policy, intelligently framed, that the faster mail ships develop a trade for the company which warrants the employment later on of intermediate passenger and cargo steamers. Such has been the result of the Cunard subsidy, of the subsidy to the French Messageries Maritimes, and others. Two of the Japanese companies named have older steamers ready to go into the trades mentioned as occasion may warrant. The former San Francisco ships are already assigned to South America.

SOUTH AMERICAN LINE.

A subsidy of 690,511 yen annually for five years is provided for a Japanese line to South America. There are to be 6 voyages a year, so the subsidy amounts to $57,000 a round voyage of 25,000 miles, or as near as may be $4.60 per nautical mile outward bound. This is the rate paid to 20-knot mail steamships of 8,000 tons or over under our ocean mail act of 1891. The Japanese ships, however, are to be only 13 knots, and range from 5,200 to 9,300 tons. In his admirable report on the Japanese legislation of 1909 (S. Doc. 152, 61st Cong., 1st sess.) Mr. C. J. Arnell, of our embassy at Tokyo, says of this South American line:

> The Government's proposal to open a regular line to South America met with severe opposition in the Diet and considerable criticism from the press on the general grounds that it was contrary to the new policy of financial retrenchment to subsidize an enterprise whose immediate undertaking was not essential and which did not promise to be profitable for some years to come. As already reported, however, the Government seemed to attribute more than ordinary importance to the line and, after vigorous action, succeeded in effecting a compromise with the Diet whereby the subsidy for the present year (about 500,000 yen) was retained in the budget. There is no evidence, however, to show that the motive for the establishment of the line is more than purely commercial, and the general opinion seems to be that it is the outcome of investigations recently made in South America by Mr. Uchida, director of the commercial marine bureau. The immediate subsidizing of the line was evidently desired in order to participate in what is believed to be a promising field—the proposed establishment of regular steamship services by the Hamburg-American, Norddeutscher-Lloyd, and a certain Chinese company. The new Japanese line will include regular calls at Hongkong, Moji, Kobe, Yokohama, Honolulu, Salina Cruz and Manzanillo (Mexico), Callao (Peru), and Iquique and Valparaiso (Chile).

On October 25, 1909, a bill was passed in the Mexican Congress to grant from the Mexican treasury to this Japanese line a subsidy of 10,000 pesos ($5,000) a voyage, or $60,000 annually.

COMPARISON OF WAGES.

Occasional references have been made above to the rates of subsidy provided in the American ocean mail act of 1891. Of the various restrictions imposed by that act, one especially must be considered in any question of trans-Pacific navigation. Section 3 of that act, among other matters, prescribes:

> And upon each departure from the United States the following proportion of the crew shall be citizens of the United States, to wit: During the first two years of such contract for carrying the mails, one-fourth thereof; during the next three succeeding years, one-third thereof; and during the remaining time of the continuance of such contract at least one-half thereof.

For reasons well understood Americans are averse to working side by side with Asiatics. The law which prescribes that 50 per cent of the crew shall be Americans thus in effect provides on the Pacific that all shall be Americans. Possibly race differences would not be carried so far as to prevent the employment of Asiatics as stewards on a ship where the deck department and engine-room department were manned by Americans, but obviously each of the three departments must be altogether Caucasian or altogether Asiatic. The question of labor on shipboard, accordingly, is primarily a question of race and secondarily of wages.

Appendix B[a] contains an official statement of the wages paid on the Japanese steamships *Tenyo Maru* and *Chiyo Maru*, obtained through the courtesy of the Japanese embassy. It is explained that the relatively small number of the officers and crew and the consequent diminution in the total of wages, compared with American, British, and German steamships, is due to the fact that on these two steamships oil exclusively is used as fuel. Thereby, of course; a much smaller number of firemen is required and no trimmers or coal passers are needed, who comprise a large part of the crews of ships using coal.

The American trans-Pacific steamships most nearly resembling the *Tenyo Maru* and *Chiyo Maru* are the *Korea* and *Siberia*, of the Pacific Mail Steamship Company, each of 11,284 gross tons, about 2,000 tons less than the Japanese steamers, and of 19 knots speed, compared with 21 knots of their competitors. Of the crew of 289 of the American ship, 256 are Asiatics, mainly Chinese shipped at Hongkong for the round voyage. Were these ships to be employed under the act of 1891, American crews would be required. Fewer men, however, would be needed. The following table shows the number of officers and crew and the total wages per month in dollars paid on the *Korea* and *Siberia* with their present crews and with crews under the act of 1891, a corresponding statement concerning the Japanese steamships *Tenyo Maru* and *Chiyo Maru*, and, for ready reference, the crew and wages of one of the best known German trans-Atlantic liners, *Kaiser Wilhelm der Grosse*, of 14,349 gross tons, 22 knots.

COMPARATIVE WAGES.

	American.				Japanese.		German.	
	Mixed crew.		American crew.		No.	Wages.	No.	Wages.
	No.	Wages.	No.	Wages.				
Saloon officers	5	$575.00	5	$575.00	5	$625.00	5	$295.12
Deck department	50	785.79	48	1,805.00	53	732.00	58	811.69
Engineer's department	138	2,350.41	111	5,390.00	65	1,213.00	212	3,830.33
Purser's department	96	1,124.88	96	3,030.25	120	1,677.50	225	2,778.41
Total	289	4,836.08	260	10,800.25	243	4,247.50	500	7,715.55

The wages of the master or captain of the ship are not included in any of the tables above, as the master, of course, does not sign the ship's articles and his pay is frequently a matter of personal agreement. Under the head of saloon officers are included the chief officer of the ship, the chief engineer, the purser, the surgeon, and the freight clerk, a classification employed on the Pacific, but not in general use on the Atlantic. The deck department, of course, includes the officers of the ship, boatswains, carpenters, seamen, and cadets, where they are carried. The engineer's department includes the engineers, electricians, oilers, water tenders, firemen, and coal passers, while under the purser's department are included all those assigned to personal service, such as cooks, bakers, butchers, stewards, stewardesses, barbers, porters, laundrymen, bell boys, etc.

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[a] Not printed in this volume. See note on page 459.

The monthly pay of 289 men, comprising the mixed crew of Americans and Asiatics on the *Korea*, is $4,836, while the monthly pay of 243 men on the Japanese *Tenyo Maru* is $4,247. The smaller Japanese crew and pay roll, as stated, are due to the use of oil as fuel. Under similar conditions the difference in total wages would not be considerable. If the American ship were operated with an American crew under the provisions of the act of 1891 the number of the crew could be reduced to 260, but the monthly pay roll would be increased to $10,800. In the matter of wages alone, accordingly, the American crew would mean an additional cost of operation of $72,000 a year, less wages not paid to part of the crew discharged while the vessel is in port abroad. The vice-president of the Pacific Mail Steamship Company, Mr. R. P. Schwerin, in a statement submitted to the Merchant Marine Commission (vol. 2, p. 1409) stated that the annual cost of provisions for the mixed crew of the *Korea* is $20,140, while the estimated cost of provisions for an American crew of the same ship would be $48,767, a difference of $28,000. To carry and feed the American crew alone, accordingly, would entail an additional expense of fully $80,000 over the corresponding expense of the Japanese ship. This sum in itself would be equal to a handicap of about $2.25 a nautical mile outward throughout the year.

Averages are often deceptive, but with the usual qualifications attention is drawn to the fact that the average monthly wages of an American crew for the American steamships *Korea* and *Siberia* are $41.54, due mainly to the high wages paid to American firemen. The average monthly wages on the same ships with mixed (Chinese) crews are $16.73. The average monthly wages of the Japanese steamships *Tenyo Maru* and *Chiyo Maru* are $17.48, while the average monthly wages of the German trans-Atlantic *Kaiser Wilhelm der Grosse* are only $15.43. The pay roll of the German steamship was for the voyage of March 19, 1901. Since then German wages have increased only about 7 per cent. The annual report of the Bremen Chamber of Commerce for 1908 shows that the average monthly wages of German seamen at Bremen for the past eight years have been, for 1901, $14.47; 1902, $14.51; 1903, $14.59; 1904, $14.61; 1905, $14.66; 1906, $15.09; 1907, $15.97; 1908, $15.49.

GERMANY.

The discussion of subsidies in the German Reichstag began after the receipt of the following communication:

BERLIN, *April 6, 1881.*

A new "merchant shipping act," the object of which is to afford state aid to the French merchant shipping, was promulgated in France on the 29th day of January, 1881, and is calculated to exercise an influence on the shipping trade of other countries, and in particular that of Germany. The undersigned therefore takes occasion to lay a memorial relative to this law before the German Parliament for its consideration.

VON BISMARCK, *Imperial Chancellor.*

This memorial, a closely printed pamphlet of 10 pages, may be found in the United States Consular Reports, No. 112, January, 1890, pages 108 to 118. It reviewed subsidy laws and contracts of various countries, particularly France and England, at that time, and concluded as follows:

> Germany pays in the over-sea trade to the participating German steam lines a sum in proportion to the weight of the parcels forwarded. At present these allowances amount to $47,000, in round numbers. It is deserving of serious consideration whether under the circumstances as given German shipping and German commerce can hope for further prosperous development as against the competition of other nations aided by public funds and assistance.

Four years after this memorial was presented—a time which seems very short in the United States, where twelve years have been spent inconclusively in debating changes in our ocean-mail act of 1891—the German Reichstag passed a law, on April 6, 1885, under which on July 3, 1885, the German Government contracted to pay annually for fifteen years to the North German Lloyd Company 4,090,000 marks ($973,420) for steamship lines to Asia and Australia. In 1898 this subsidy was increased to 5,590,000 marks ($1,330,420). Beginning with April 1, 1908, this subsidy was increased to 5,820,000 marks ($1,385,160). The changes in the subsidy, of course, have been accompanied by larger and faster steamships and by extension of the lines of communication.

One of the earliest results, if not purposes, of this policy established under Prince Bismarck, was the virtual creation of the industry of ocean-steamship building in Germany. With the bill submitted to the Reichstag by Prince Hohenlohe in 1898 for the increase of the North German Lloyd subsidy was a very complete report of the operations of the contract of 1885. (Report of the Commissioner of Navigation for 1898, pp. 138–147.) In this German report it is stated that on the completion of the contract a German shipyard, the Stettin-Vulcan, with skill and experience had laid the foundation of a new industry by building ships for the oriental trade as well as fast steamships to the United States; that other shipyards sprang into existence, among the foremost that of Schichau, in Dantzic, and Blohm & Voss; and that "all experts assert that without the influence of the government ocean-mail service such a steamer as the *Kaiser Wilhelm der Grosse* could not have been built." Indeed the argument in 1898 for the revision of the German subsidy of 1885 is pertinent to our own situation. That report stated:

> It was decided by the establishment of an imperial mail-ocean service that our commerce by sea called for quicker, more direct, and more regular transportation in order to make it more efficient, and, above all, to compete with foreign enterprise. That this need for the long voyage to eastern Asia and Australia could be met, not as in the case of relatively short voyages to America by German shipping without government assistance, but that such navigation, on account of its expense, should be promoted by state aid, is shown in the amendment to the steam mail act of the 20th of November, 1884. And experience has proved the truth of that view.
>
> Quick and well-managed, regular steam communication—experience has taught—is the backbone of oversea navigation. It is indispensable to passenger and postal travel; by its speed and regularity it does most to encourage commerce in the greatest and smallest industries. The closer and greater the connection between the commerce and industries of two countries the greater the need for steam navigation. In the attainment of this necessity, Germany, with her steadily growing industries and constant increase of power among the nations, should no longer remain under the protection of alien flags, but beneath her own flag and with her own steam navigation should bring her home

products to a prominent position. The advantages to be gained by Germany's establishing a steam mail service to east Asia and Australia are expressed in the following:

1. Connection between Germany and the above-named countries, especially as markets for German products, is important, and trade would be increased by steam navigation. It would make German industries more active and impart new life to the German marine.

2. German commerce, by the transportation and export of goods, would be made more independent of foreign agents, relieved of the disadvantage of reshipping goods in foreign ports and the additional expense pertaining thereto, and the leaving of its goods at the mercy of agents.

3. In the matter of passenger travel, German ships with German accommodations would furnish a quicker passage than private companies without state help could offer.

4. The mail service, especially for letters, would no longer be dependent on foreign transportation. * * *

Among the branches of German industries most benefited by the establishment of the ocean mail service, shipbuilding must be mentioned, for which it opened a new period of development. * * *

At the close of the Chinese-Japanese war the question arose which of the European nations would understand best how to take advantage of the new state of affairs, for a great field for the increase of industrial relations with the Asiatic kingdoms was opened. China, particularly, had not only thrown open her harbors to foreign commerce, but through the introduction of machinery and railroad building had created a great activity in the iron and machine industries. * * *

In this industrial competition Germany is most actively interested. Political-commercial movements in Great Britain and the United States may occur in the next year which may make Germany think it necessary to be independent of these two powerful nations and the British colonies by widening and strengthening her markets. In this expansion China, with her 400,000,000 population, and Japan, with her rapid awakening, both calling for European industries, take a prominent place. * * *

The proposed increase of our government mail service would also be of assistance to the German navy in eastern waters. The principal maritime nations now provide that their large merchant steamships can be employed as auxiliary cruisers for war purposes, and the German navy needs similar additions. The new transoceanic steamships proposed to be built under the subsidy law will be available for this purpose. The existing contract would not meet this necessity. It is for the interest of national defense that this contract be revised. The greater the speed attainable by the government ocean mail service the more useful would it be in the event of war. * * *

For success in international competition it is desirable to lose no time, and especially as the recent acquisition by Germany of Chinese territory at Kiaotschau necessitates quicker postal connection with Asia. This makes it essential that the North German Lloyd be in condition with ships ready, fully equipped, especially built for speed and comfort, to undertake to supply fortnightly communication with eastern Asia as soon as the contract is closed. Under these circumstances the increase of 1,500,000 marks in subsidy should be made payable within the year 1898.

On February 1, 1890, the Reichstag authorized a fifteen-year contract with the German East African Steamship Company, of Hamburg, which was extended in May, 1900. Under this contract the company receives an annual subsidy of 1,350,000 marks ($321,300) for its lines to Africa. The principle followed in the government contracts with the North German Lloyd Steamship Company, of Bremen, and the German East African Steamship Company, of Hamburg, is clearly explained in the valuable *note verbale* of the Imperial German foreign office, dated December 30, 1908, and printed in Appendix N.[a] In that note it is stated:

The reason why the Empire disburses these amounts lies rather in the necessity of having at its disposal regular ship connections for the public post, travel, and freight with certain lands across the sea, it being impossible for a private

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[a] Not printed in this volume. See note on page 459.

shipping company to start such lines without state funds, since they can not pay the costs of operation unaided.

Apparently the German Government nearly twenty-five years ago carefully considered the question whether it is better for a community to employ its capital at a profit than at a loss, and decided that in view of other considerations it is at times advisable to invest government capital in enterprises which otherwise would be losing and would not be undertaken. The facts in the wonderful growth of German shipping are reasonably familiar to all. The following short table shows the increase in the number, net tonnage, and total crews of ships of Bremen and Hamburg, the great centers of German shipping, from 1885 to 1908.

	1885.			1908.		
	Number.	Net tons.	Crew.	Number.	Net tons.	Crew.
Bremen	112	101,891	4,023	465	668,541	19,921
Hamburg	187	186,546	5,495	697	1,255,463	28,032
Total	299	288,437	9,518	1,162	1,924,004	47,953

The gross tonnage in 1908 of the Bremen steamships was 1,112,769 tons, of which 206 ships of 739,903 gross belonged to the North German Lloyd. The gross tonnage in 1908 of the Hamburg steamships was 2,022,140 tons, of which 164 ships of 869,762 gross tons belonged to the Hamburg-American line. Either of these merchant fleets is superior in carrying capacity to all the ocean steamships under the American flag in foreign trade. The German pay to German ships for German ocean mails has increased from $47,000 in 1881 to $2,246,290 (9,438,190 marks) in 1907. The following table shows the expenditures in marks (mark=23.8 cents) during the years 1905, 1906, and 1907.

GERMAN SUBSIDIES AND MAIL PAY.

Company.	Line.	1905.	1906.	1907.
1. Payments on the basis of the imperial postal steamship laws:		*Marks.*	*Marks.*	*Marks.*
North German Lloyd, Bremen	Bremen-Eastern Asia and Australia.	5,590,000	5,590,000	[a]5,590,000
German East Africa Line, Hamburg.	Hamburg-East and South Africa.	1,350,000	1,350,000	1,350,000
Total		6,940,000	6,940,000	6,940,000
2. Separate payments of the postal administration:				
Jaluit Co., Hamburg	Sydney-Jaluit-Hongkong	120,000	120,000	120,000
Sartori S. S. Co., Kiel	Kiel-Korsor	178,000	178,000	178,000
Grand Ducal R. R. Administration, Schwerin, M.	Warnemunde-Gedser	80,000	80,000	80,000
J. F. Braunlich, Stettin	Sassnitz-Trelleborg	320,000	320,000	320,000
North German Lloyd, Bremen	Bremen-New York, Bremen-Brazil, Bremen-La Plata, Bremen-Cuba, Mediterranean-Levante, and other lines.	[b]539,624	[b]576,309	[b]687,474
Hamburg-America Line, Hamburg.	Hamburg-New York, Hamburg-West Indies, Hamburg-Cuba-Mexico, Shanghai-Tsingtau-Tientsin, and other lines.	[c]518,911	[c]692,942	[c]782,887

[a] From April 1, 1908, the amount of the annual compensation is 5,820,000 marks.

[b] Of which these sums for the Bremen-New York line: 1905, 530,590 marks; 1906, 568,318 marks; 1907, 627,305 marks.

[c] Of which these sums for the Hamburg-New York line: 1905, 213,543 marks; 1906, 298,411 marks; 1907, 308,437 marks.

GERMAN SUBSIDIES AND MAIL PAY—Continued.

Company.	Line.	1905.	1906.	1907.
2. Separate payments, etc.—Cont'd.		*Marks.*	*Marks.*	*Marks.*
Hamburg-South America S. S. Co., Hamburg.	Hamburg-La Plata and Hamburg-Brazil.	101,496	111,902	129,448
Cosmos Line, Hamburg	Hamburg-South America	36,227	39,229	68,774
Woermann Line, Hamburg	Hamburg-West Africa, Cape Town-Swakopmund.	118,344	278,589	178,865
German East Africa Line, Hamburg.	Bombay-East Africa	2,684	2,510	2,249
Atlas Line, Bremen	Bremen-Turkey	....	87	174
Hansa Line, Bremen	Bremen-La Plata and East India.	5,984	6,600	7,091
German Levante Line, Hamburg.	Hamburg-Levante	3,309	3,184	2,958
A. Kirsten, Hamburg	Hamburg-England	18,875	18,214	20,889
Argo Line, Bremen	Bremen-England	1,480	1,520	1,492
Oldenburg-Portugal Steamship Company, Oldenburg.	Hamburg-Morocco	8,465	8,452	10,472
Roland Line, Bremen	Bremen-Chile-Peru	....	10,116	17,422
Total		2,053,349	2,442,654	2,498,190
Grand total		8,993,349	9,382,654	9,438,190

It will be noted that the mail payment to the North German Lloyd fast steamers to New York was only $149,298 in 1907, but our Government paid the company $272,856 for eastbound mails. The Hamburg-American Line to New York received $73,408 in German mail pay and $64,629 from the United States. The German payments for South American mails amount to about $75,000 annually. Of these payments the *note verbale* mentioned states:

> The North German Lloyd, Bremen, and the Hamburg-American Line, Hamburg, were paid for the German letter posts on the line to New York 5 francs for 1 kilogram of letters and postal cards, 50 centimes for 1 kilogram of other matter, while for the letter posts to other countries the ocean transit charges provided for in the Rome International Postal Convention were paid.

These rates are those paid by the United States to foreign ships, being equivalent to 35 cents a pound for letters and cards and 4½ cents a pound for other articles. The rates of sea and inland postage which we pay to American ships are 80 cents per pound for letters and post cards and 8 cents per pound for other articles.

It can not for a moment be contended that the remarkable growth of German shipping in the past quarter of a century is due mainly to the two mail contracts. Those contracts had a great part in creating the shipbuilding industry and in promoting German commercial and political influence in Asia and Africa. They had their share in promoting the building of the very fast German trans-Atlantic liners. But the growth of German shipping is part of the general industrial growth of the Empire, the causes of which will not be considered in these pages. Undoubtedly the very low rates of wages paid to the crews of German ships give German shipowners a material advantage over their British competitors and render American competition impossible under normal conditions. Average wages on German trans-Atlantic ships are not so high as, or at best only equal to, Japanese wages on Japanese ships and Chinese wages on ships in trade with Hongkong on the Pacific. The German seaman, however, avoids distasteful military service. Again, German public sentiment, from the Kaiser down to the humblest subject, appears to be enthusiastic in support of the German mercantile marine. In twenty-five years no increase of German subsidies has failed in the Reichstag. The special exemptions and privileges, if any, which Hamburg and Bremen may confer on their great steamship lines in exclusive terminals or control of immigrant traffic under imperial sanction are not known to the Bureau.

PREFERENTIAL RAILROAD RATES.

The railways of Germany are owned and operated by the Government, and are a powerful instrumentality in promoting the German export trade and German shipping to the East and to Africa. This aid can not, of course, be reduced to terms of money. In principle the Government establishes very low freight rates over its railroads for articles sent from the interior on through bills of lading to be exported on German steamships. The following extract from the report in 1902 of a committee of the British Parliament illustrates the operation of the system:

> The system of preferential railway rates is much more elaborately established in the official tariffs of the German East Africa and the German Levant lines. It is equivalent to an indirect bounty. Assistance is given by granting largely reduced rates of carriage by all German state railways to goods exported from inland places in Germany on through bills of lading either to East Africa or to the Levant, respectively, by the German East Africa Line or the German Levant Line steamers. These combined land and sea through rates of freights, which were introduced for the Levant Line on June 15, 1890, and for the East Africa Line on April 1, 1895, are lower than those in force for goods sent to German ports for direct exportation by sea. They attract goods to the steamship lines. Goods sent by the Levant Line steamers on through bills of lading to stations on Turkish and Bulgarian railways also profit by reduced rates of carriage on those railways. Up to the beginning of the South African war a similar advantage was granted on the Delagoa Bay Railway (Netherlands South African Railway) for through goods from Germany to the Transvaal, and these rates per mile were lower than those charged per mile by British railways from Cape Town for the same kinds of goods. But it should be noticed that the actual sea rates to Africa from continental ports and from British ports are the same, owing to the German steamship lines working in conference with the British lines to maintain uniform ocean rates.
>
> The differences in favor of German combined land and sea through rates of freight as against the British rates will be best appreciated by a perusal of some of the appendixes to this report, and especially Appendix (1902) 17, handed in by Sir Charles Cayzer; but a few examples may be given here. The cost per ton of sending iron rails from Birmingham to Liverpool, which is 97 miles, or 156 kilometers, is 8s. 4d.; the cost per ton of sending iron rails from Oldenburg to Hamburg, which is 160 kilometers, is 3s. 4d. on the East African tariff and 3s. 2d. on the Levant tariff. Again, the cost of the carriage of machinery packed for export from Leicester to Glasgow, 313 miles, or 504 kilometers, is 36s. 4d. a ton; from Wronke, East Prussia, to Hamburg, also 504 kilometers, it is 10s. 10d. a ton on the East African tariff and 7s. 10d. a ton on the Levant tariff. The carriage of hardware from Birmingham to London, 111 miles, or 179 kilometers, is 21s. 8d. a ton; from Flensborg, Schleswig-Holstein, to Hamburg, also 179 kilometers, it is 4s. 2d. a ton on the East African tariff, and varies according to the class of hardware between 4s. 1d. and 4s. 9d. on the Levant tariff. The rate for export bales of cotton from Manchester to Bristol, 175 miles, or 282 kilometers, is 22s. 4d. a ton; from Berlin to Hamburg, 279 kilometers, it is 8s. 7d. on the East African tariff and 4s. 1d. on the Levant tariff. Plows and cement can be shipped to Delagoa Bay rather more cheaply by British than by German route, but the German through tariff to Delagoa Bay is cheaper, and in most cases far cheaper, for bicycles, bottles, brush ware, carpets, galvanized iron and heavy ironwork, glass, furniture, hollow ware, iron pipes, nails, and pianos. The reduced rates have been, and are, fixed in accordance with the experience gained in Germany as regards the working cost per train mile over long distances, and the primary object is the building

up, promoting, or increasing of German export trade to the countries in question, and the enabling it to compete successfully with the trade of other foreign states to those countries. From the German point of view the policy of all these direct and indirect subsidies has been thought a good investment, and worth the money spent, but an element of success is the energy and enterprise of the recipients. (Report of the British select committee on steamship subsidies, pp. V and VI.)

The system employed by Germany through railroad preferentials is not feasible in the United States under our present laws regulating interstate and foreign commerce. The considerations which now control in the United States are set forth in the report and opinion of the Interstate Commerce Commission on February 5, 1904, in the matter of the Publication and Filing of Tariffs on Export and Import Traffic, the following extract from which seems pertinent:

The market for American products in the Orient is not yet established, but is still in the formative state. The American producer meets there competition from England, France, Germany, and other European countries. Freight rates from those countries are by water, need not be published, and are subject, so far as we know, to no governmental supervision. It is asserted that if the rate under which the American manufacturer must operate is a fixed quantity, which can only be varied under certain conditions, he is at a disadvantage in comparison with his European competitor; that the search for these markets is a joint venture between the manufacturer and the carrier, and that each must be ready to meet by advance or reduction the competition which is found. The carrier should not be prohibited from giving aid to the American producer.

There is this further consideration: Lines of ocean communication between Pacific ports and the East have not yet reached that stage of development to which they have advanced upon the Atlantic. While, as already said, very few railway systems are directly interested in lines of transportation leading from the eastern seaboard, exactly the reverse is true upon the Pacific coast. Nearly all transcontinental lines either directly maintain or are interested in lines of steamships plying between a Pacific port and the Orient. It is alleged that in no other way can the necessary vessels for ocean carriage be obtained at the low rate which must be made. It is apparent that a line of railway can not successfully maintain a steamship line across the Pacific unless it has power to prefer its own line to other ships. But if it is compelled to publish an inland differential it must accord that rate to anyone who offers merchandise for transportation. It must carry to and from the port for the same price when the freight comes or goes by some tramp steamship as when it is carried in its own vessels. It may, to be sure, publish a through joint rate, and may use its own steamers exclusively in carrying under this rate, but in that event it must publish the joint rate and rest therefore under the disadvantage of not being able to vary it as occasion requires.

Upon the other hand, it is evident that the practice contended for by these transcontinental carriers might ultimately result in a condition highly prejudicial to the public interest. If the railway line has power to prefer its own steamship to other ocean transportation, to carry to the seaboard for a much lower charge in one case than in the other, this must result in discouraging the development of independent lines to the Pacific coast. The ocean carrying trade to and from those ports must unavoidably become concentrated in those lines having satisfactory rail connections. If now these several lines agree among themselves upon rates from inland points to foreign destinations in exactly the same way that the transcontinental lines themselves have to-day agreed as to rates between inland points, there would result a condition of monopoly producing much higher through rates than as though the inland carriers were compelled to afford inland service upon the same terms, however the traffic might move by water.

Without, however, attempting to discuss the questions of policy which might be presented, for the proper consideration of which the commission does not now possess the necessary information, it is evident that there may be here a condition where the rigid enforcement of the present requirements of the act as to the publication and maintenance of foreign schedules would work a substantial hardship to both the carrier and the shipper.

FRANCE.

Nothing has occurred in the past ten years to require a modification of the following extract from the report of the Bureau for 1899:

> The efforts of France to increase her merchant marine have been out of proportion to the results attained. Uncertainty as to the course to be pursued by the French Government has done almost as much harm to French shipping as indifference or inaction could have wrought. In 1866 France adopted the "free-ship" policy. After the Franco-Prussian war French shipbuilders objected to the policy, and in 1872 it was abandoned, and France adopted discriminating duties. Other nations, including the United States by proclamation by President Grant, promptly retaliated, and the policy proved so injurious to all French interests that it was abandoned in 1873, after a little over a year's experience, and the "free-ship" policy, which has since been in operation, was restored. In 1881 a complicated system of construction and navigation bounties was adopted.

This in turn was followed by another construction and navigation bounty law in 1893. Of that law it will suffice to say that it offered to sail vessels a bounty of 3.2 cents per 100 nautical miles per ton, sufficient to enable these vessels to sail at random about the seas without engaging in commerce and still pay dividends, while to steamships the bounty was only 2.1 cents. This attempt to change the normal course of development of marine architecture naturally failed, and although expenditures for shipbuilding bounties rose from $400,000 in 1893 to nearly $1,800,000 in 1900, and for navigation bounties from $1,200,000 to nearly $3,000,000 in the same period, the French mercantile marine showed no proportionate increase. French shipbuilders turned from the steamer, the natural instrument of modern commerce by sea, and built sail vessels to get the bounty. Some of the obviously ineffectual provisions of the law of 1893 were changed by the law of April 7, 1902, which fixed at 150,000,000 francs ($28,960,000) the maximum expenditures for navigation and operating bounties for the ten years' life of the act. This law of 1902 was again changed by the law of April 19, 1906, which was to be effective for ten years, and is in force at the present writing. The law of 1906 provides a shipbuilding bounty of 145 francs ($28) per gross ton for steel steamships and $18.33 for steel sail vessels; for wooden steamers over 150 tons $7.72, and for wooden sail vessels $5.80. These bounties are gradually reduced until the highest is lowered to $19.30 in 1916, and the others proportionately. The shipowners' bounty (*compensation d'armement*) allows graded rates for each day a vessel is in commission. For a steel steamship the allowance is 4 centimes (100 centimes=19.3 cents) for each gross ton up to 3,000; for each ton from 3,000 to 6,000, 3 centimes; and for each ton over 6,000, 2 centimes. A 10,000-ton steel steamer would thus be paid $56 daily. The bounty for sail vessels is 1 centime less. To get this bounty a 14-knot steamer between the shipment and discharge of its crew must average daily 90 miles, and a sail vessel 35 miles.

Shipowners drawing bounties under the act of 1902 may remain under that act or change to the act of 1906. The payment of all these bounties, of course, is subject to numerous qualifications and requirements; thus, the shipbuilding bounty is paid only when 90 per cent of the workmen are French.

Shipbuilding bounties are limited to 50,000,000 francs, shipowners' bounties to 150,000,000 francs, or in all $38,600,000. The French budget for 1908, according to a dispatch just received from the American embassy at Paris, contained appropriations of 10,400,000 francs ($2,007,200) for shipbuilding bounties and 31,500,000 francs ($6,079,500) for general navigation and shipowners' (*compensation d'armement*) bounties.

France also pays annually about $120,000 in fisheries bounties.

The ocean-mail service of France is carried on mainly by her two great steamship companies, the Messageries Maritimes and the Compagnie Générale Transatlantique. As far back as 1827 France paid a subsidy of 5,000 francs a voyage (franc=19.3 cents) for monthly sailings from Bordeaux to Veracruz. The first contract with the Messageries Nationales (since known as the Messageries Impériales and now Messageries Maritimes) in 1851 was for 3,000,000 francs annually for mail lines with 13 steamers to Malta, Constantinople, and Alexandria. In 1861 the Compagnie Générale Transatlantique entered into its first contract for an annual subsidy of 3,300,000 francs for mail lines to North America. From this beginning France has developed a comprehensive ocean-mail system by which regular connections are maintained with North and South America, Asia, Africa, and Australia. The contracts by which this system is supported provide in most instances for a fixed sum per marine league and a fixed number of voyages, the total subsidy not to exceed a fixed sum. The mileage traversed varies slightly from year to year, as under our ocean-mail act of 1891, so the total expenditure varies. Following is a complete statement of the payments for the year ended December 31, 1908:

FRENCH MAIL SUBSIDIES, DECEMBER 31, 1908.

Route.	Company.	Ships.		Subsidy.	
		Number.	Speed.	Per mile.	Total.
			Knots.		
Mediterranean	Messageries Maritimes	7	18	$0.84	$265,889
China-Japan	.....do	10	14	1.99	1,149,574
Australia	.....do	7	14	1.99	624,202
Indian Ocean	.....do	5	12	1.29	371,456
Brazil-Argentina	.....do	5	14	1.90	[a] 289,500
New York	Générale Transatlantique	6	19	3.15	1,042,200
Cuba-Mexico	.....do	14	11½	1.98	864,254
West Africa	Chargeurs Réunis	7	12	.67	51,838
Algiers-Tunis	Générale Transatlantique	17	10-15	.83	308,800
Do	Navigation Mixte	11	11	.83	62,132
Do	Transports Maritimes	4	11	.83	
Corsica	Fraissenet & Co	10	10-14	.55	106,150
Calais-Dover	Northern Railway	2	15	4.95	81,542
Total		105			[a] 5,217,087

[a] Including $153,665 navigation bounties.

The five-year contract with the Messageries Maritimes for a mail line twice a month to Brazil and Argentina provides a subsidy of $12,400 a voyage, or about $2 a mile outward bound, for a 14-knot steamer, while our law of 1891 provides only $2.30 for a 16-knot steamer.

In October, 1908, the Government concluded a new and comprehensive contract with the Messageries Maritimes which was debated at length in the Chamber of Deputies last June and July, socialists opposing. The Bureau is not advised of action finally taken. The contract provides for an annual subsidy of 15,000,000 francs for twenty-five years, which under certain conditions may be increased to 17,500,000 francs. The total mileage is to be 2,102,000 miles, and the average subsidy, accordingly, $3.20 per nautical mile outward. The fastest steamships of the company make 18 knots, for which our act of 1891 provides for $2.30 per nautical mile outward. The French rate for lines to Japan and China is $3.86, and to Brazil and Argentina, $1.90. The growth of French merchant shipping as well as that under other foreign flags is shown in Appendix F.[a]

NORWAY.

The relative increase in the ocean steam shipping of Norway during the past twenty years has been second only to the relative increase in Japanese ocean steam shipping. In round numbers, the world's steam shipping has increased from 13,000,000 gross tons in 1890 to 36,500,000 gross tons in 1909, nearly threefold. In that time the ocean steam tonnage of Japan has increased from 138,000 gross tons to 1,150,000 gross tons, that of Norway from 246,000 gross tons to 1,388,000 gross tons. Yet the aims, lines, and conditions of the maritime development of the two countries have been absolutely different. Japan, as shown, has devoted her energies through various forms of state aid to the creation of fleets of fast steamships, convertible, if necessary, to military purposes, and developing trade in fixed directions almost under imperial control. Individual enterprise has developed Norway's steam shipping, which, to a great extent, is a conversion from sailing vessels. The largest Norwegian steamers, the *Stigstad* and *Henrik Ibsen*, are only a trifle over 4,500 gross tons, and the majority of Norwegian steamers of size are built in England. While Japan has established two great shipyards through shipbuilding bounties, Norway merely refunds the duties on materials imported for shipbuilding, which amount annually to about $26,800 (100,000 kroner). In the United States such materials for years have been admitted free of duty when used in ships for foreign trade, and under the Payne tariff law such materials are admitted free for ships to be used not over six months in the coasting trade. In their physical relations to the sea there is an obvious similarity between Japan and Norway, for one is composed of a number of narrow islands, and the other is so penetrated by fiords that nearly all parts of the country are relatively near salt water. Much of the local communication of Norway is necessarily by water, and the Government, which owns and operates the larger part of the small railroad mileage, is also compelled to assist in maintaining small steamer routes for mails and trade between different Norwegian ports and the near-by ports of Sweden and Denmark. The importance of Norwegian shipping in the world's commerce, the large number of American citizens of Norwegian birth or descent, and the general discussion here and abroad of subsidy projects warrant the publication in full in Appendix N[a] of the contributions (crown=26.8 cents) of the Norwegian Government to its shipping.

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[a] Not printed in this volume. See note on page 459.

These contributions comprise, first, the sum of 2,096,225 kroner annually ($561,788) paid for 115 mail routes on the sea, very few of which touch foreign ports. They resemble in some respects our star routes and even our rural free delivery. The largest single amount is 369,625 kroner ($99,060) for the mails by sea between Christiania, the capital, and Bergen, the principal seaport; the smallest, $48 annually, for the route between Haugesund and Bormedal. In return for these payments the ship guarantees safe custody of the mails, their delivery to the shore, free transportation of postal officers when necessary, and indemnity for loss through negligence. Strictly speaking, these payments, with one exception, are not in the nature of subsidies to promote shipping.

Besides these mail payments the Norwegian Government pays about $500,000 in the form of trade subsidies to Norwegian steamships. Of these the Norwegian department of public works states:

> A yearly state subsidy is granted several national steamship companies in order to enable them to keep up steamship routes in districts where such communications are considered as required but where a steamship line could not be kept up to the extent required without support from the side of the authorities. The state further accords by contract compensation to certain ship owners in order that they should keep up certain routes to foreign ports. For the financial period 1908-9 (five-fourths of a year) 1,916,250 kroners were granted for such purposes.

The subsidies thus described, aggregating $513,555 for the fifteen months ended June 30, 1909, are divided among 41 companies. These companies are bound to conform to the time tables of the state railways, to carry the mails free of charge, to set aside fixed sums for repairs, and to hold their books open to state inspection. Of these contracts the more important are for the lines from Norway to American Gulf ports, to Newcastle, and to Spain. The contract for the route to the United States (Appendix N[a]) calls for 9 voyages a year to Cuba, Mexico, and an American Gulf port, for which $33,500, $3,700 a voyage, or about 66 cents a mile outward, is paid. The contract requires new ships for the route to be built in Norway, if no serious loss in time or cost is involved. For some years past the trade of the Gulf of Mexico, particularly the fruit trade, has been carried on in small Norwegian steamers with Norwegian crews on long contracts. The purpose of this subsidy is doubtless to bring these distant Norwegian seamen into direct touch with the mother country and also to send out to them special Norwegian products. The payment is, of course, as distinctly a subsidy and as essentially protective as some of the large amounts paid by Japan.

The line between Norway and Newcastle, England, is paid $56,950 trade bounty, and also $25,125 for carrying the mails. This payment began in 1891, and though the subsidy per voyage is less than $500 it has sufficed to turn from British to Norwegian steamers a considerable part of the trade between the two countries. For the line to Spain $13,400 annually is paid.

Necessity compels and tradition invites the Norwegians to become seamen. There capital and labor naturally turn to the sea, and laws which in the United States would be restrictive, in Norway are merely the affirmation of local customs. Thus the law requiring three-fourths of the crews of Norwegian ships to be Norwegians imposes no restraint on the growth of Norwegian shipping, while a similar law in the United States would virtually drive all our ships in foreign trade to foreign flags. While the principle of subsidies has been accepted in Norway, the amounts as shown are relatively small and mail and trade are their chief aim. This year, however, a project has been put before the Norwegian Parliament for the establishment of a distinctly Norwegian steamship line between Norway and the United States, based on the principle of shipbuilding and navigation bounties and admiralty subventions. While the Storthing has not yet acted upon the project, dispatches show that there is strong public sentiment in its favor. This national Norwegian undertaking has the support of important Norwegian banks and business interests, and the idea of national subscription to the shares both in Norway and among Norwegian communities in the United States has been discussed. The admiral of the Norwegian navy has expressed himself in guarded terms in support of the project. It is proposed to begin with a line of two small Norwegian steamers making a fortnightly service between Bergen, Trondhjem, and New York. The project is sufficiently explained in the following extract from the petition of its promoters addressed to the Norwegian Storthing and referred by it to the Royal Government:

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[a] Not printed in this volume. See note on page 459.

> In consideration of what has been stated above, we beg to submit the following proposition:
>
> 1. That in view of the establishment of a regular mail-carrying steamship route under the Norwegian flag between Norway and the United States of America, realizing in all essentials the plan worked out for "Den Norske Amerikalinie," a state subsidy of up to 350,000 kroner ($93,800) a year be granted during three subsequent years, upon such conditions as may be stipulated.
> 2. That for the fiscal period July 1, 1909, to June 30, 1910, such a subsidy of up to 50,000 kroner ($13,400) be granted to the line, provided the route be opened during that fiscal period.
> 3. That as a part of the capital required for the construction of two vessels a subsidy of up to 100,000 kroner ($26,800) be granted for the fiscal period July 1, 1909, to June 30, 1910, toward the fitting out, etc., of the vessels, in view of their employment as armed cruisers, according to detailed specification and conditions.
> 4. That in view of the employment of the vessels for purposes of defense a yearly subsidy of 75,000 kroner ($20,100) per vessel, running from the inauguration of the route, be granted, upon such conditions as may be hereafter stipulated.

NETHERLANDS.

The budget of the Netherlands for 1908 contained appropriations of 2,189,081 florins (florin = 40.2 cents), or $880,011, in the interests of Dutch steam navigation companies. Of this amount, 88,384 florins were appropriated for the marine reserves of Holland and 6,600 florins for their subsistence. The balance was to meet payments on ocean-mail contracts between the Government and various Dutch steamship companies. Through the usual channels copies of these voluminous contracts have been forwarded to the Bureau and are on file. The salient features of these contracts may be gathered from the table on the next page.

NETHERLANDS MAIL CONTRACTS.

Company.	Service.	Pay.
		Florins. Dollars.
Holland-American Line	Weekly to New York	2,200= 884
Nederland Steam Navigation Co.[a]	Weekly to Java and Dutch East Indies.	291,200=117,062 72,800= 29,265
Rotterdam Lloyd	do	249,600=100,338
Zeeland Steam Navigation Co	Flushing to England	465,000=186,980
Royal West India Mail	To Dutch Guiana	67,600= 27,175
Java, China, Japan Line	13 voyages annually	287,500=115,575
Royal Holland Lloyd	24 voyages to Brazil and Argentina	225,000= 90,450
Royal Packet Co	Service among Dutch East Indies	433,197=174,145
Support of Marine Reserve		94,984= 38,183
Total		2,189,081=880,008

[a] The Nederland Line steamers also receive a subsidy of 70,000 lire ($13,510) from the Italian Government for stopping 26 voyages at Genoa en route to Batavia.

The intimate connection between ocean-mail transportation and commerce are, of course, familiar, so while the payments mentioned in form are mail subsidies and so described they obviously tend to promote trade. The sum of 1,334,297 florins was spent on Dutch lines connecting the Netherlands with Java, Sumatra, and other islands of the Dutch East Indies. It is worth noting that the people of the Netherlands thus deem it worth while to spend over $500,000 in a budget necessarily framed with the greatest economy, in order to bind their eastern possessions to the mother country. Through the steamers of the Rotterdam Lloyd and Nederland companies it is possible every week to go, under the Dutch flag, from Holland, by way of either Genoa or Marseille, through the Suez Canal, to the Dutch East Indies. Every month one may leave Batavia, under the Dutch flag, for Hongkong, Shanghai, or Yokohama, while the Government contributes liberally to a frequent mail, passenger, and freight service among the Dutch East Indies. By comparison the expenditures of the United States for connections with the Philippines are insignificant.

In November, 1907, the Government contracted for fifteen years with the Royal Holland Lloyd Steamship Company for 24 voyages a year to Brazil and Argentina. For the first five years the annual subsidy is 300,000 florins, for the second five years 200,000 florins, and for the last five years 100,000 florins. The ships for this service must be built in Holland, and this year the *Frisia*, a twin-screw steamship of 14 knots, 6,500 gross tons, was built on the Scheldt. The subsidy, about $5,000 a voyage, is thus at the rate of about 85 cents per mile outward bound, or 30 cents less than is provided by our ocean-mail act of 1891 for an American mail steamship of the same speed and size. The Holland-American Line is paid by weight for carrying letters and newspapers to the United States, but the letter mail, of course, goes across the Channel from Flushing to take the fast English ships, or goes by the fast German or French steamers.

ITALY.

For some years the Italian Government has carried out a comprehensive system of promoting its shipping interests. The system includes navigation bounties, construction bounties, bounties for repairs in Italian shipyards, and refund of duties on imported materials. These projects are incorporated in the Italian law of July 23, 1896, which was modified in some particulars by the act of 1901. Besides this general law, the Italian Government for years has had ocean-mail contracts with its principal steamship lines, especially the Navigazione Generale Italiana, which are in part in the nature of navigation bounties and partly mail compensation.

One of the principal features of the Italian law of 1896 (Report Commissioner of Navigation for 1899, pp. 169–170) is the provision for a navigation bounty of 0.8 lira (lira=franc=19.3 cents), or 15½ cents, per gross ton for each 1,000 nautical miles for Italian steamers or sail vessels in trade beyond the Straits of Gibraltar, the Suez Canal, or to the Black Sea, or the Danube. Voyages in the Mediterranean are paid 10 cents per 1,000 miles. These bounties are gradually reduced with age. In the case of steamships of 16 knots or over the secretary of the navy may provide for 50 per cent additional bounty. Foreign-built vessels receive half bounties. Steel vessels built in Italy receive a construction bounty of $14.86 per gross ton; wooden vessels, $3.38. The principal changes made by the amendments of 1901 are a limit of 8,000,000 lire to the total annual expenditures for navigation and shipbuilding bounties, the exclusion of foreign-built ships from navigation bounties, and a proviso that steamers shall not be paid for more than 30,000 miles a year; or sail vessels for more than 12,000 miles a year. The maximum annual navigation bounty a steamship can receive is thus $4.65 a gross ton unless the secretary of the navy for a 16-knot steamship authorizes an increase up to 50 per cent. Thus the *Duca degli Abruzzi*, 16½ knots, 7,800 gross tons, would be entitled under the law to $36,270 per annum and 50 per cent additional if the secretary of the navy elects. Apparently this allowance is not made. The round voyage from Genoa, Naples, to New York and back is 15,000 miles, and under favorable conditions a 16-knot steamship would make between four and five voyages annually, so that the navigation bounty would be a trifle over 50 cents per mile traversed or $1 per mile outward. Besides the navigation bounty, however, a construction bounty of about $115,000 was due upon the successful trial trip of the steamer.

The following table shows the expenditures for the past three years and the provision in the Italian budget for the current year for the general bounties to Italian ships under the law of 1896, as amended:

ITALIAN BOUNTIES, 1906–1909.

		1906.	1907.	1908.	1909.
		Lire.	*Lire.*	*Lire.*	*Lire.*
Tariff refunds		1,409,489	561,123		4,488,425
Construction bounties		2,500,088	1,160,271		
Repair bounties		109,474	222,473		
Navigation bounties:					
Steam		3,020,065	3,227,552		3,511,575
Sail		205,185	160,142		
Total	lire	7,244,821	5,431,561	6,008,498	8,000,000
	dollars	1,388,154	1,048,290	1,158,675	1,544,000

The largest single beneficiary of the navigation bounty is the Navigazione Generale Italiana, which has received an average of 780,000 lire annually for the past five years (791,723 lire in 1908), besides its mail subventions. The fast Italian mails for America, of course, are sent by rail to Channel ports, so the Italian lines to the United States are not under mail contract. The navigation bounty of 780,000 lire is paid for 26 voyages to New York, aggregating 234,000 miles, and 34 voyages to Brazil and Argentina, aggregating 468,000 miles, in all 702,000 miles, or 21 cents per mile the round voyage.

The principal expenditures of Italy, however, are under her ocean and Mediterranean mail contracts, a summary of which follows:

ITALIAN MAIL CONTRACTS.

Company.	Annual mileage.	Subsidy.	Average per mile.	Company.	Annual mileage.	Subsidy.	Average per mile.
Navigazione Generale Italiana	1,752,969	$1,815,774	$1.03	Siciliana	46,851	$26,648	$0.57
Nederland [a]	352,386	13,510	.03	La Cava	8,328	1,872	.22
Veneziana	143,856	212,300	1.47	Miscellaneous administrative expenses		7,141	
Veloce	137,628	106,150	.77				
Puglia	164,355	126,222	.76				
Napoletana	84,465	19,300	.23	Total	2,690,838	2,328,917	

[a] The subsidy to the Nederland (Dutch) Steamship Company is a mail payment, pure and simple, to a foreign corporation for carrying the Italian mails to Batavia 26 times a year.

The 103 steamers, aggregating 258,400 gross tons, of the Navigazione Generale Italiana comprise over a fourth of the steam tonnage of Italy, and the mail and navigation services of the company reach nearly every port of the world where the Italian flag is seen. The contracts of the company with the Government fill a small volume. Following are the routes, which involve 80 per cent of the appropriations to that company, the remainder being voted for short and frequent voyages between Italian ports:

CONTRACTS WITH NAVIGAZIONE GENERALE ITALIANA.

Route.	Miles.	Voyages.	Subsidy per mile.	Total.
				Lire.
1. Naples-Palermo	336	313	$1.75	986,826
2. Genoa-Alexandria	2,750	52	1.00	807,976
3. Naples-Palermo-Constantinople	2,700	52	1.00	747,302
4. Venice-Constantinople	2,600	52	1.05	739,116
5. Port Said-Bombay	6,000	12	1.93	726,480
6. Civitavecchia-Gulf Aranci	313	313	1.33	497,044
7. Bombay-Singapore	4,900	12	1.60	489,960
8. Venice-Port Said	2,775	24	1.33	444,576
9. Massua-Aden	810	53	1.60	358,545
10. Naples-Palermo-Tunis	720	53	1.60	317,205
11. Alexandria-Massua	2,400	13	1.93	311,922
12. Naples-Tripoli	1,080	52	.96	280,332
13. Tunis-Tripoli	1,060	52	.96	277,212
14. Leghorn-Tunis	915	52	.96	237,900
15. Genoa-Port Said	2,910	12	1.33	197,798
16. Syracuse-Malta-Tripoli	1,270	26	.96	165,555
17. Alexandria-Port Said-Tripoli	1,350	13	1.33	99,185
Total { lire				7,684,934
Total { dollars				1,483,192

The configuration of the Italian peninsula and of the Italian islands is such that communication in many cases is possible only by sea, and a considerable part of the Italian subsidies are similar to our payments for railroad mails, for star routes, and even for rural free delivery. There are only about 12,000 miles of railroads in Italy. Thus the largest single appropriation in the table above is for the daily steamer between Naples and Palermo. In the mail contracts with other steamship companies the entire payment of 654,000 lire to the Puglia Company, 100,000 lire to the Napoletana, 138,070 lire to the Siciliana, and 9,700 lire to La Cava are wholly for services between domestic ports. Italy produces no coal, so the expenses of steam navigation are correspondingly increased. Other expenditures, such as those to the Navigazione for the routes marked 2, 8, 9, 11, for example, are obviously to maintain close connections with Italian possessions on the Red Sea, for Italy is no exception to the rule of nations by which it is considered a national obligation of the first importance to have superior transportation facilities under the national flag between the central government and its remote possessions. The only exception is the United States. The contract of the Navigazione Generale was for fifteen years from 1893, and the conditions of renewal at this writing are still under consideration. The speed required ranges generally from 10 to 13 knots. The rate of subsidy given above is for the round voyage. For the outward voyage alone, as provided in our ocean-mail law of 1891, the rate above, of course, should be doubled. For 12-knot steamers we pay 77 cents under the act of 1891, so that the lowest Italian rate is more than double the American. All the Italian fifteen-year mail contracts expired June 30, 1908, but have been temporarily extended, with notice of final termination on June 30, 1910, when the whole subject will be reviewed by the Italian Senate and Chamber of Deputies, with a view to new arrangements more in accord with the development of Italy and of shipbuilding since 1893. A review on this page of the contracts in force, accordingly, would be unprofitable. The general navigation bounty law of Italy also will probably be recast within the next few months. Italian anchorage taxes, corresponding to American tonnage taxes, in 1907 amounted on Italian ships to 2,095,011 lire ($404,337); on foreign ships to 9,570,106 lire ($1,847,030), a sum more than sufficient to pay navigation and shipbuilding bounties.

SPAIN.

The Spanish Cortes this year enacted a law approved June 17, 1909, which establishes a comprehensive system of mail subsidies and navigation and shipbuilding bounties. The essential features of the law are printed in Appendix N.[a] Last year Spain expended 10,282,000 pesetas ($1,984,426), of which 8,445,222 pesetas (peseta=19.3 cents) were appropriated to the Compañia Trasatlántica for its lines to the Philippines and elsewhere. An examination of the details of these expenditures is unnecessary here, as the new and more comprehensive project covering ten years is about to go into effect. The project calls for an annual expenditure of 2,750,000 pesetas ($530,750) for general navigation bounties, 2,000,000 pesetas ($386,000) for navigation bounties to mail lines to Brazil, Argentina, New York, Habana, and to the Adriatic and Black seas, 9,627,909 pesetas ($1,858,186) for navigation bounties to mail lines to the Philippines, Argentina, New York, Cuba, Mexico, and the Caribbean, and 1,943,400 pesetas ($375,076) for steam connections with the Canaries and Balearic Islands and Spanish possessions in Africa. The shipbuilding bounties are not estimated, but the amount presumably will not be large. The rates per gross ton for vessels built in Spain are for steel passenger steamers $35.70, for steel cargo steamers $32.80, for wooden sail vessels $19.13. During 1908 the shipbuilding bounties amounted to only $38,000. The general navigation bounties are limited to 2,750,000 pesetas ($530,750) a year, and only 350,000 tons may share in them. The general rate is 0.4 peseta, or 7.7 cents, per gross ton per 1,000 miles.

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[a] Not printed in this volume. See note on page 459.

The principal subsidized mail routes, to be carried out in most instances by the principal Spanish steamship corporation, the Compañia Trasatlántica, may be thus summarized:

SPANISH MAIL ROUTES.

Route.	Voyages.	Subsidy.		Steamships.		
		Total.	Per mile.	Number.	Speed.	Tonnage.
					Knots.	
1. To the Philippines	Every 4 weeks	$500,488	$1.70	5	12½	4,500
2. To Argentina	Monthly	335,133	2.81	....	13½–15	....
3. To Porto Rico, Cuba, Venezuela, and Colombia.	do	300,903	1.91	....	12½–13	....
4. To Cuba and Mexico	do	281,605	2.81	5	13½–15	[a] 9,000 [b] 7,500
5. To New York, Cuba, and Mexico	do	274,709	1.91	6	12½–13	[a] 9,000 [b] 6,000
6. To Fernando Pó	do	165,290	1.29	3	10–12	[a] 4,000 [b] 2,400
Total		1,858,128				

[a] Average. [b] Minimum.

Besides the subsidies tabulated above, the Spanish law provides for 10-knot cargo boats a subsidy of 950,000 pesetas ($183,350) for 12 voyages to New York and Habana and $129,310 for 24 voyages to Argentina.

Over ten years after the loss of the Philippines, Spain deems it desirable to spend about $500,000 annually in maintaining communication under the national flag with the archipelago. For 14-knot steamers to Argentina, once a month, Spain is willing to appropriate at the rate of $4.60 a nautical mile outward, the rate for 16-knot American steamships defeated in the House of Representatives last March. The recent subsidy legislation of other countries in fact shows that various shipping propositions which have passed the Senate of the United States during the past ten years, and failed in the House, have been studied elsewhere, and that some of their features, adapted to varying national conditions, have been incorporated in the laws of other countries. Spain has already provided for a subsidized line through the Panama Canal. The Spanish law increases Spanish tonnage taxes to 14 cents at each entry, which may be commuted by payment of an annual tax of 2 pesetas, or 39 cents, the annual maximum under our tariff act of August 5, 1909, being 30 cents.

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AUSTRIA-HUNGARY.

Austria-Hungary on February 23, 1907, passed a comprehensive navigation and shipbuilding bounty law (see Appendix N[a]), to be in operation for fifteen years. The bounty is confined, of course, to vessels in competitive foreign trade, and foreign-built ships are admitted to it only when launched less than two years before placed under the Austrian flag. Among other requirements is a prescription of the amount of Austro-Hungarian exports and imports which must be carried. Under this law steamships built in the dual Empire after January 1, 1907, are entitled to 10 crowns (crown=20.3 cents) per gross ton for each of the first three years after launching. Beginning with the fourth year this bounty is reduced annually 5 per cent, and beginning with the tenth year the annual reduction is 10 per cent. Foreign-built steamships registered under the Austrian flag before December 31, 1910, are entitled to an annual bounty of 7 crowns; registered after December 31, 1910, to 6 crowns. The percentage of reduction for age is, of course, the same. Austrian-built sail vessels are entitled annually to 6 crowns for three years with the same reduction for age. To receive these bounties a vessel must be in commission at least nine months a year.

The law also grants a shipbuilding bounty of 40 crowns ($8) per gross ton for steamers and 14 crowns ($2.80) for sail vessels built in Austrian yards and of at least 50 per cent domestic material. For engines and boilers built in Austria a bounty of 8 crowns per 100 kilograms (say, $1.60 per 200 pounds) is provided.

A uniform navigation bounty of 2 cents per net ton is appropriated for all types of vessels in the foreign trade, under the limitations already indicated. Still further, ships receiving these various bounties are exempt from the industrial taxes of Austria.

The general bounty each year can be paid only to 15,000 gross tons of steamers and 3,000 gross tons of sailing vessels. Foreign-built vessels are not entitled to any bounty unless the quota above is not filled by Austrian-built ships. The shipbuilding bounty can not be granted to more than 25,000 gross tons during a year, but when a balance remains it may be carried over to following years. There is no limitation to the amount of the navigation bounty, but with the general bounty it can not exceed the following annual maxima: 1908, $880,000; 1909, $940,000; 1910, $1,015,000; 1911, $1,060,000; 1912 and thereafter, $1,120,000.

Under the general law the maximum appropriations for 1910 will be 5,000,000 crowns ($1,015,000) for the navigation and trade bounty provisions and 1,000,000 crowns ($203,000) for construction bounties, assuming that 25,000 tons of Austrian steamships are built in the year and making no allowance for the machinery bounty. These provisions of the general law, however, are not the main reliance of Austria for the military strength of its merchant marine. It has specific mail contracts with the Austrian-Lloyd Steamship Company, whose 60 steamships, of 196,292 gross tons, comprise a third of Austria's tonnage in foreign trade.

The Austrian Reichsrath on February 23, 1907, authorized a navigation and ocean-mail contract for fifteen years with the Austrian-Lloyd Steamship Company, by which a maximum annual subsidy of

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[a] Not printed in this volume. See note on page 459.

$1,450,000 is assured to the company. In addition the Government agrees to refund to the company annually, when the contract is in full operation, its Suez Canal taxes on 42 voyages into the Indian and Pacific oceans, amounting to about $375,000. Still further, the contract binds the company to build its new mail steamships in Austrian shipyards, in return for which an additional annual shipbuilding bounty of $240,000 is guaranteed. The following synoptical table shows the details of this fifteen-year contract:

AUSTRIAN-LLOYD SUBSIDY.

Route.	Voyages.	Miles per voyage.	Minimum gross tons.	Minimum speed.	Subsidy per mile.	Total annual subsidy.
				Knots.		
1. Trieste-Constantinople	52	2,542	3,000	12	$1.44	$190,345
2. Trieste-Salonica	52	3,414	3,000	10	.97	172,202
3. Trieste-Smyrna-Constantinople	52	3,534	2,800	10	.97	178,256
4. Trieste-Beirut-Messina	26	3,700	3,000	10	.97	93,314
	26	3,898	3,000	10	.97	98,308
5. Trieste-Alexandria	52	2,424	3,000	14	1.44	181,509
6. Constantinople-Braila	20	828	2,800	10	.97	16,063
7. Constantinople-Odessa	26	849	2,800	10	.97	21,412
8. Constantinople-Batum	52	1,262	3,000	10	.97	63,655
9. Trieste-Bombay[a]	12	8,686	4,000	13	1.14	118,824
10. Trieste-Bombay[a]	6	8,686	4,000	10	.69	35,960
11. Trieste-Calcutta[a]	12	14,244	4,000	10	.69	117,940
12. Trieste-Kobe[a]	12	19,643	4,000	10	.69	162,644
Total						1,450,432

[a] Suez Canal dues also refunded.

The round voyage rates of subsidy to Austrian steamships may be compared with outward rates under our act of 1891. For 10-knot steamers the Austrian Government pays from 69 cents (plus refund of Suez Canal charges) to 97 cents per nautical mile. The Government of the United States does not class as mail steamers those below 12 knots. For 12-knot mail steamers the Austrian Government pays $1.44 and for 13-knot steamers, $1.14 (plus refund of Suez Canal charges). For 12 and 13 knot mail steamers our Government pays 77 cents per nautical mile. For the 14-knot Mediterranean steamers to Egypt the Austrian Government pays $1.44, while the maximum payable to vessels of that speed under our act of 1891 is $1.30.

On the part of the Hungarian Government separate mail contracts are made with the following Hungarian steamship companies under the following laws:

HUNGARIAN MAIL CONTRACTS.

	Crowns.[a]
Adria Royal Hungarian S. S. Co. (act of 1901)	1,140,000
Hungarian Levant Co. (act of 1898)	180,000
Hungarian-Croatian S. S. Co. (act of 1901)	590,000
Hungarian River Navigation Co. (act of 1894)	800,000
Total	2,710,000

Hungarian ships also received 750,000 crowns for navigation bounties and 350,000 crowns for shipbuilding bounties under the act of 1907. To complete the ocean mail system outlined above, the Austrian Government has just drawn an agreement for South American lines with the United Austrian Shipping Company. The contract is for fourteen years from 1910 and carries an annual payment of 1,000,000 crowns ($200,000) for voyages once in three weeks at the start, to be increased to once in two weeks in 1912. The Reichsrath has not yet ratified it, but public sentiment favors it and ratification is probable.

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[a] Crown=20.3 cents.

RUSSIA.

The navigation of Russia is exceptional in that it comprises as many distinct phases as the navigation of the United States. Russia has not only a coast on the Baltic Sea and on the Pacific Ocean, but also on the White Sea, Bering Sea, and Arctic Ocean, the Black Sea, and the Caspian, while the river systems of the Empire are important. A large part of her navigation during certain months is blocked by ice, and communication between her Pacific ports and the Baltic and Black seas is necessarily subject to Suez Canal dues. With a relatively great coast line in the aggregate, Russia is thus much less favorably placed for maritime enterprises than smaller nations. The merchant shipping of the country since Peter the Great introduced the art of shipbuilding has been closely connected with the Government. The principal Russian steamship company, the Volunteer Fleet, was created in 1877, not as a commercial venture but as a military measure in view of possible war. Its capital was subscribed by wealthy Russians, and the Government has virtually the control of its board of directors. The amount of state aid thus always has been considerable and is at the present time in proportion to Russian steam tonnage. Russian subsidies are not in the form of mail contracts, although mail transportation is required, but are given for specified voyages on specified routes. During 1908 they amounted to 2,997,239 rubles (ruble=51.5 cents), or $1,543,578. The details are given in Appendix N.[a] Besides these, 650,000 rubles ($334,750) was appropriated to refund the Suez Canal dues paid by Russian ships. The vote for Caspian Sea navigation was $149,036; for the White Sea and Arctic Ocean, $148,350, and for the Black Sea and Danube River, $161,288. These forms of navigation are not within the sphere of general international competition.

Since the war with Japan the operations of the Russian Volunteer Fleet and the East Asiatic Company have been materially altered, and some of their best steamships formerly employed in trade through the Mediterranean with Port Arthur have engaged in the trans-Atlantic trade to New York. In 1908 the Russian Government made an eleven-year contract with the Russian Volunteer Fleet Company by which an aggregate payment of 6,905,000 rubles ($3,556,075) is guaranteed, payable in varying annual installments for two voyages a week out of Vladivostok to Chinese and Japanese ports. Details of the contract are in Appendix N.[a] For 1909 the amount allowed is $412,000 for a total of 220,380 miles, or at the rate of $3.75 a mile outward, compared with $2.30 a mile allowed under our ocean-mail act of 1891 for steamships of 16 knots, which the Russian contract ships are required to develop on trial trips. Temporarily the company has been allowed to employ foreign steamers of less speed for a lower subsidy, but beginning with January, 1910, Russian ships must be used.

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[a] Not printed in this volume. See note on page 459.

The war of 1904 demonstrated that the weakness of the large nation and the strength of the smaller lay, in part at least, in the merchant marine of each. Since then Russia has been engaged in a study of the merchant-marine systems of other nations, and particularly of the forms of legislative promotion of navigation and shipbuilding. Appendix N[a] contains the draft of a bill pending last July in the Duma for shipbuilding bounties. These bounties range from $25.75 to $51.50 per gross ton, and in the case of steamers an additional bounty of $18 per indicated horsepower is allowed for engines built in Russia. These figures are very large and they indicate the lengths to which the supporters of the measure are willing to go in order to secure a merchant fleet and the seamen, necessity of whom for national defense has been demonstrated to Russia. The officers and seamen of the Volunteer Fleet are part of the military forces of the Empire.

DENMARK.

The Danish laws do not provide for navigation or shipbuilding bounties, admiralty subventions, or appropriations for naval reserves. The United Steamship Company is paid at pound rates for transporting mails and parcels post to the United States, and the Danish East Asiatic Company is paid in the same manner for carrying the mails, etc., to St. Thomas in the West Indies. The amounts are not stated, but they must be small, as the fast trans-Atlantic mails of Denmark, of course, are sent by the 20-knot steamships under other flags. The Aarhus-Kallundborg Line receives 12,000 kroner (kroner = 26.8 cents), or $3,618, for its services. Denmark paid about $10,000 annually for its steam connections with Iceland and the Faroe Islands, according to the report to the British House of Commons in 1902. Whether that amount is now paid has not been ascertained. Also at that time Denmark was paying trade subsidies to lines of the United Steamship Company to England to promote the sale of fresh butter and Danish agricultural products in England. These amounted to $48,000 in round numbers, and in addition the steamers were exempt from $26,800 in government harbor charges at Esbjerg. The Danish Government also on the government railroads gave exports the benefit of reduced rates on the long haul, including distances on land and sea. In 1902 all these forms of payments amounted to between $140,000 and $150,000. Doubtless they have since been changed immaterially. Inquiry has not been made on the subject, because these payments are solely for the development of the trade of Denmark with her immedate neighbors or with her remote islands of Iceland and St. Thomas, and they offer no important consideration to the people of the United States. Resemblances between natural conditions in Denmark and Norway readily offer themselves, and the growth of Danish shipping is due to natural causes—so to speak—rather than to the small state appropriations mentioned, which have other and definite purposes.

SWEDEN.

Sweden has adopted a special method for the promotion of Swedish navigation companies. The Diet in 1903 established a fund called the "Rederilane-fonden" (shipowners' fund), from which the State loans money on favorable terms to Swedish navigation companies. The fund in 1903 was 5,000,000 crowns (crown=26.8 cents) ($1,340,000), increased in 1905 to 10,000,000 crowns, and in 1907 increased to 15,000,000 crowns ($4,020,000). The amount so loaned in 1909 has not been ascertained. In 1906 Sweden entered into a five-year contract with the Swedish Nordstjernan Company, guaranteeing a total subsidy of 510,000 crowns, increased in 1908 to 655,000 crowns, for a steamship line to Buenos Aires, the subsidy for 1909 being 150,000 crowns ($40,020). In 1907 a five-year contract was made with the Swedish East Asiatic Steamship Company for a total subsidy of 1,850,000 crowns for regular service to the Orient, the annual payment being about $100,000. This subsidy is calculated to pay all the Suez Canal tolls of the ships. These subsidies, of course, are trade and navigation subsidies, for there are much quicker ways of sending Swedish mails to Asia and South America. For its mails to the United States only $3,752 are paid to Swedish ships, included with $137,752 paid in 1909 for the ocean-mail service to neighboring European countries.

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[a] Not printed in this volume. See note on page 459.

PORTUGAL.

Portugal has no laws for general construction or navigation bounties or admiralty subventions and makes no appropriation for naval reserves. The Empresa Nacional de Navegacão received for its mail service during the year 1907–8 a sum equivalent to $53,000, and the appropriation asked for during 1908–9 was equivalent to about $50,000. Its contract with the Government, made in 1905, binds the company in return to carry free mails and official correspondence and parcels post up to the weight of 1,000 kilograms per trip. Beyond this weight the payment to any port is 2 cents per kilogram, and the post-office agent is transported and maintained without charge to the Government.

BELGIUM.

Belgium grants no subsidies and is so far dependent on foreign shipping in certain directions that it offers a bonus to German steamships to call at Antwerp. Since 1889 it has paid to the German Australian Steamship Company 1,500 francs a voyage to have its monthly steamers for Australia call at Antwerp, where at least 1,500 tons of outward freight are guaranteed. Under a somewhat similar arrangement the North German Lloyd Company is paid 60,000 francs a year, in return for which its steamers under contract with the German Government for voyages to Asia and Australia agree to stop at Antwerp for cargo. The Government also repays to the company all its Belgian and Dutch pilotage taxes. The steamers of the German Kosmos Line for Chile and Peru stopping at Antwerp are also exempted from pilotage charges. During 1908 the refund of pilotage charges amounted to 170,000 francs, and other payments, as above, to 120,000 francs; in all, 290,000 francs, or $58,000.

SOUTH AMERICA.

The countries of South America are not shipbuilding countries, and so far as they have merchant steam fleets they are composed mainly of vessels built in England. The shipping under the flags of the countries of South America, of course, have only a trifling share in the world's foreign commerce, but those countries repeatedly have manifested a willingness to vote liberal subsidies to promote ocean commerce. Spain is now inviting Argentine cooperation.

The Lloyd Brasileiro, of Rio de Janeiro, is the principal company of South America. It operates 53 steamers mainly along the coast of South America, although it is now undertaking to carry on communication with New York with chartered steamers. The latest official reports are to the effect that the Government of Brazil, always closely connected with the company, intends to buy a controlling interest in it and operate it as a government commercial mail line to the United States as well as along the Brazilian coast and to the La Plata. The negotiations in October have not been reported as yet concluded. A September report of the British legation at Rio de Janeiro states of Brazilian subsidies:

> The national mercantile marine is subsidized to the extent of about £260,000 ($1,300,000) per annum in return for stipulated services having in view the opening up of the interior and keeping in touch with coastal and fluvial ports for postal purposes. These subsidies refer to grants from the Federal Government, but occasionally companies are permitted to receive subventions at the same time from state governments. The most heavily subsidized company is the Lloyd Brasileiro, which receives £187,000 ($908,820) annually and is granted numerous privileges, which, however, do not appear to leave it in a very satisfactory position. The company's contract is doubtless burdensome, which may partially account for its being so often in trouble, but it is of great value to the country in regard to the particular purposes for which it was initiated, viz, the establishment of regular services between little-frequented ports and as an adjunct to the navy. Its present affairs are undergoing a change and are too involved and ill defined to permit of any concise statement.

To some extent the Brazilian river postal subsidies resemble the payment in 1908 of $758,235 by our Post-Office Department to our river steamboats for carrying mails, as on the Yukon.

In 1905–6 the Argentine Congress passed a bill providing a subsidy of $25,000 a voyage for fast steamships under the flag of Argentina between Buenos Aires and the great seaports of Europe. No action under the measure has yet been reported.

The Government of Chile is considering the question of ocean-mail subsidies. Last year it paid $45,625 to the Chilean Compañia Sud Americana and $14,600 to the British Pacific Steam Navigation Company for mails to Panama. The ultimate Chilean arrangements, of course, can not be made until the opening of the Panama Canal. Including the amount stated above, Chile is reported to have paid $253,195 for its mails by sea last year.

OTHER COUNTRIES.

The Government of Roumania owns the railroads and also a steamship line connecting its ports with those of Turkey and Greece. From Turkey and Greece no information was requested.

China has no budget and makes no formal contracts for its ocean mails, but allows certain privileges to the steamship companies carrying them which are regarded as sufficient compensation.

Mexico's joint subsidies with Canada for British lines on the Atlantic and Pacific and the contract to join with Japan in subsidizing a Japanese trans-Pacific line have been referred to. No inquiry was made concerning Central American States.

The subsidized lines of all the principal maritime countries of Europe, of Japan, and of Australia through the Suez Canal give Egypt, of course, the best ocean-mail facilities of any country in the world. The Egyptian Government is under a fifteen-year contract to pay $29,550 to British shipowners for mails from Alexandria to Constantinople and has made a supplementary contract for $24,962 for weekly mails to Suakin.

SUEZ CANAL TOLLS.

The refund of Suez Canal tolls as a means of promoting national shipping is a specific part of the policy of Russia, Austria-Hungary, and Sweden, and indirectly through their subsidies to national mail lines using the canal such refund is in effect part of the policy of Germany, France, Holland, Japan, Italy, and Spain. The British Peninsular and Oriental subsidy chances to be almost exactly the sum of its Suez Canal tolls, $1,600,000. The present rates of Suez Canal tolls are 7.75 francs ($1.50) per net ton, reduced to $1 for ships in ballast. Passengers pay $1.93, children between 12 and 3 years half rate, and children under 3 years are free. There are also variable pilotage, towage, and anchorage charges in certain cases. The transit receipts in 1907 were $22,388,000. About one-fourth of this amount is refunded by their respective Governments to steamship companies in the form of subsidies. This general policy will doubtless be considered when upon the completion of the Panama Canal the policy of the United States concerning tolls shall be determined. There is ample precedent for the refund of tolls to be paid by American ships, especially as the United States will pay all the costs of building the Panama Canal.

FREE SHIPBUILDING MATERIALS.

The extensive shipbuilding bounties provided by France and some other countries are designed in part as a refund of customs duties on materials imported for the construction of ships. The United States began in 1871 the policy of admitting free of duty materials for shipbuilding, and has gradually extended that policy. Section 19 of the tariff act of August 5, 1909, contains this comprehensive exemption:

> That all materials of foreign production which may be necessary for the construction of vessels built in the United States for foreign account and ownership, or for the purpose of being employed in the foreign trade, including the trade between the Atlantic and Pacific ports of the United States, and all such materials necessary for the building of their machinery, and all articles necessary for their outfit and equipment, may be imported in bond under such regulations as the Secretary of the Treasury may prescribe; and upon proof that such materials have been used for such purposes no duties shall be paid thereon. But vessels receiving the benefit of this section shall not be allowed to engage in the coastwise trade of the United States more than six months in any one year except upon the payment to the United States of the duties of which a rebate is herein allowed: *Provided,* That vessels built in the United States for foreign account and ownership shall not be allowed to engage in the coastwise trade of the United States.

The tariff, accordingly, will not hereafter enter directly into the cost of building American ships which for at least half the year are engaged in foreign trade.

STATUTORY RESTRICTIONS.

The statement is often made that the "repeal of our antiquated navigation laws" would be followed by the speedy return of American prominence on the ocean. This statement is always made without a bill of particulars, and usually without discrimination between results due to legislation and results due to causes over which legislation has but slight influence. The conditions under which men follow the sea are radically different from the conditions of fifty years ago. The conditions under which men work on shore in the United States are, of course, different now from the conditions of the first half of the last century. Legislation has had only a moderate effect in bringing about these changes.

The statutory restrictions on American shipping are briefly as follows:

First. Ownership of American vessels is restricted by section 4131 of the Revised Statutes to "citizens of the United States or a corporation organized under the laws of any of the States thereof." This restriction as to ownership does not differ materially from the restriction imposed by the laws of other nations, although in a few instances foreign part ownership of national vessels is permitted to a limited extent. Transportation on the water here and abroad, however, as transportation on the land, has passed practically into the control of corporations. The shares of many of these corporations are on the market and there is no reason in statutory law why a large or even controlling interest in an American steamship should not be purchased by British or German capital, or why large amounts of American capital should not be invested in British or Norwegian ships. In fact considerable American money is invested in ships under the British and Norwegian flags; considerable English money is invested in Spanish ships, and German money is invested in ships under the Brazilian flag. In its recent contract giving heavy subsidies to the Cunard Company the British Government has insisted that all the stock of the corporation should be owned by British subjects. In pursuance of this policy the Cunard articles of association now contain this clause:

> No share in the company shall be held by or in trust for or be in any way under the control of any foreigner or foreign corporation or any corporation under foreign control.

This rigid rule in a special case proves the rule that capital is international and that the flag of a ship does not necessarily indicate the nationality of those who share its profits or losses. The requirement of American ownership is thus no real restriction upon the development of our shipping.

Second. The master of an American ship and all officers who shall have charge of a watch, including the pilots, shall in all cases be citizens of the United States. This requirement, also imposed by section 4131 of the Revised Statutes, is substantially the law of foreign nations, except England. In 1853 England repealed the law requiring three-fourths of the crews of British vessels in foreign trade to be British subjects and the entire crews in the coasting trade to be British subjects. Since that time the officers of British ships, except of subsidized lines, are not required to be British subjects.

While the law just referred to is a restriction upon American shipowners, it should be borne in mind that our naturalization laws make an exception in favor of seamen. Under section 2174 of the Revised Statutes any foreign seaman declaring his intention of becoming a citizen of the United States, who has served three years creditably on board of merchant vessels of the United States subsequent to his declaration, may be admitted to citizenship. Less than three years' service would scarcely qualify a man for the position of watch officer, so that the restriction as to citizenship of officers is not onerous. It is almost as easy for a competent and industrious Norwegian or German to qualify himself for the position of watch officer on an American ship as it is for him to buy an American farm. Few probably would care to change our laws in these particulars.

Third. Except in the case of crews of subsidized ocean-mail steamships under the ocean-mail act of 1891, there is no restriction upon the nationality of the crews of American merchant vessels. Since the act of June 26, 1884, such crews may be shipped for a round voyage to the United States at a foreign port and at rates of wages only slightly higher than those obtaining at such port.

We have no statutory standards of seamen's qualifications except in the case of officers. The obligations imposed by law on American shipowners with respect to the crews of their vessels are not more rigid, generally speaking, than those of foreign nations, and in some respects are less restrictive. No one such statute is recalled the repeal of which would place American shipowners in a better position for success in international competition.

Fourth. In 1898 Congress improved the minimum scale of provisions for seamen on American ships and that statutory standard is now higher, from our point of view, than those of other nations. That, however, is to an extent a matter of national taste, and doubtless the German, Italian, or Japanese is as well satisfied with the diet furnished him under his flag as he would be with the American bill of fare. Furthermore, on American ships, both before and since the act of 1898, the food furnished generally has been better than that prescribed by law. Statute has not brought about this result and statute would not change it. The abundance and variety of our food supplies, our relatively sparse population, and climatic conditions have formed our standards of what a man should eat and drink and these standards have been carried on board our ships. Probably no one would care to reduce by law our minimum food scale for ships, and if it were done it would not be possible to feed our seamen as cheaply as the seamen of some other nations are fed. For these conditions the " antiquated navigation laws " can not be held responsible; they are in advance of others.

Fifth. The Frye law of 1895 regulating forecastle accommodations was passed in advance of the requirements of other nations. It was prompted by consideration for the health of seamen, and, in fact, has led since to improvement in the forecastles of foreign ships. That law is not antiquated, and there can be no rational argument in favor of its repeal. It is an example for others as shown at page 78.

Sixth. In the days of sailing vessels fewer men were required to man an American ship than a foreign ship, but the men, generally speaking, were more intelligent and more efficient. In the modern steamer the greater part of the crew is employed in handling coal, where the mental qualities that formerly entered into seamanship have no part. The act of 1908 gave the local inspectors the power to fix the complement of the licensed officers and crew of cargo or passenger steam vessels "necessary for her safe navigation." The law is not antiquated nor is it unnecessary. It is, of course, possible that at times the judgment of the local inspectors may err in prescribing too large or too small a crew, but in all such cases appeal to higher authorities is possible, and it is certain that for any length of time in any number of cases unreasonable requirements as to the crew will not be prescribed.

REGISTRY LAW.

In the last analysis criticism of our "antiquated navigation laws" will be found to be criticism of one law, and only one, the registry law of December 31, 1792, incorporated in section 4132 of the Revised Statutes, which reads:

> Vessels built within the United States, and belonging wholly to citizens thereof, and vessels which may be captured in war by citizens of the United States and lawfully condemned as prize, or which may be adjudged to be forfeited for a breach of the laws of the United States, being wholly owned by citizens, and no others, may be registered as directed in this title.

The laws of all other nations now permit their citizens or subjects to buy ships anywhere and put them under the national flag. In some instances a registry tax is imposed, somewhat resembling our new tax on foreign-built yachts owned by Americans, but such registry taxes are moderate. In most instances subsidized mail steamships must be built in domestic shipyards, in some instances of domestic materials; and in France the shipwrights must be mainly citizens of France.

Generally speaking, however, the citizen or subject of any foreign country can buy a ship where he pleases. The privilege of buying a ship abroad means nothing to a British subject, because ships are built more cheaply in the United Kingdom than elsewhere. The privilege means much to Norwegians, most of whose steamers are bought in England.

The United States differs from the United Kingdom, Germany, Japan, Norway, and other countries in the extent of its coasts and the great volume of its domestic trade by water. Our coasting trade has two natural divisions, the trade of the Great Lakes requiring, in round numbers, 2,800,000 gross tons, and the trade of the Atlantic and Pacific seaboards employing, in round numbers, 3,700,000 gross tons. Either of these merchant fleets singly is exceeded only by the entire shipping under the British flag, 18,800,000 gross tons, and the entire shipping under the German flag, 4,355,000 gross tons. Norway, for example, ranking next among foreign nations, has in all 1,993,000 gross tons, France 1,893,000 gross tons, Italy 1,319,000 gross tons, and Japan 1,152,000 gross tons. The registry law has not checked the growth of American shipping in the domestic trade, for under that law we rank next to the entire British Empire. It is quite possible that the building and operating of American vessels in the coasting trade share in the high costs that obtain generally throughout American industrial life, but those high costs have not, relatively speaking, checked our general industrial growth. The repeal of the registry law, so far as vessels in the coasting trade are concerned, has seldom been seriously advocated. The admission of foreign-built ships to American registry solely to engage in the foreign trade has been earnestly opposed on the ground that it would weaken or destroy the American shipbuilding industry. Yet for years no ship has been built in the United States for the foreign trade, except under the ocean-mail act of 1891 or in anticipation of action by Congress to promote the merchant marine in foreign trade. Steamships have been built under that act or to engage part of the year in some of the trades reserved to American vessels, such as the transportation of cargoes from Pacific to Atlantic ports by way of the Isthmus of Panama or of Tehuantepec, but as an independent proposition the registry law is a dead letter so far as promotion of the building of ships at home for foreign trade is concerned. It is necessarily a dead letter, for if ships were built here more cheaply it would be unnecessary, as England discovered in 1850; and when ships are more costly, American capital, seeking investment at sea can readily enter foreign maritime corporations.

The repeal of the registry law, so far as ships in foreign trade is concerned, has been earnestly advocated as the one measure necessary to bring about the return of American ships into the competitive ocean transportation business. Reports of this Bureau in 1894 and 1895 may be quoted to this effect. Yet more thorough examination of essential facts will raise considerable doubt as to the efficacy of such repeal unless accompanied by other measures. Repeal may be advocated as an academic proposition; it may be advocated because the law is at best a dead letter, and it may be advocated in order to clear the way for subsidies when its inadequacy has been shown by actual experience.

NATURAL AMERICAN OBSTACLES.

Assuming that the law permitted the American registry of a foreign-built ship for foreign trade, would such ships in fact be put under the flag? Since the war with Spain, and partly on account of it, American capital has been more disposed than formerly to venture across the sea. Large amounts of American capital a few years ago were invested in foreign ships and much is now so invested. Ship owning, however, is not a necessary form of investment here as in England and Norway or as it was when the Union was a fringe of States along the seaboard and before transcontinental railways were built. Ship owning is not sought out here for the compliments and honors of Government as in Germany and Japan, where imperial influence is exerted in ways for the encouragement of shipowners apart from the grants of funds by parliaments. On the contrary, in a few quarters in this country the business of ship owning is regarded as akin to railroading, and both have been viewed with suspicion as schemes to exploit our countrymen rather than to extend our country's resources.

The profits of the ocean transportation business as a rule are moderate, the competition is keen, and the risks considerable. The ownership of American ships in foreign trade has almost ceased, and that form of investment is not familiar to banks and capitalists here as it is abroad. It probably would not be difficult to secure American money for investment in established shipping enterprises under foreign flags, for that has been done. Such investors, however, have uniformly stated that there is no adequate business reason for transferring such vessels to our flag, even if the law permitted it. The words "privileges of a vessel of the United States," used in the statutes, are illusory, except in the coasting trade. In Central American trade our flag offers plain political advantages. For these conditions no law is responsible. They are the results of the natural development of our own and other countries, each along the lines which promise the best returns for capital and labor.

American capital is not predisposed toward the sea at present. Much less is American labor so predisposed. With a vast amount of productive land, permitting almost any industrious man who wishes it to own his home and raise a family, the United States stands in a different relation to the ocean than do England, Norway, Italy, Japan, or even Germany. The surplus population of those countries must emigrate or follow the sea. Low as are the wages of German sailors, they compare not unfavorably with wages in German factories. In all branches of ocean transportation where one terminal is at a foreign center of sea labor, such as Liverpool, Antwerp, Genoa, Marseille, or Hongkong, a steamship under the American flag is not at an insuperable disadvantage compared with the same ship under a foreign flag, because under either flag the ship can draw its crew from the same labor market. But in trade to South America, for example, where there is no native seafaring population, the conditions are different. The American ship out of New York for Rio de Janeiro must pay New York wages, while the British ship from Liverpool, the German ship from Hamburg, and the Italian ship from Genoa pay the wages of those ports. Those wages to a very great extent are governed by the general rates of wages of the country, and those general rates in turn are the product of many factors, of which legislation is not usually the principal. Evidently the American, wherever he buys his steamer, can not, under normal conditions, send it from New York to Rio in competition with a foreign ship to the same port from any of the maritime centers of Europe. Partly on account of higher wages, British shipping is slowly yielding its supremacy, for British steam tonnage in ten years has declined from 53 per cent of the world's total to 45 per cent. As Germany has no coasting trade, her shipping must go foreign.

Among the fanciful causes for the decline of the American merchant marine, the high tariff is sometimes included. Of course any tariff is to an extent a check on international trade. But the tariff operates precisely the same on foreign as on American ships. If it were so high that nothing could be brought by sea into the United States, then foreign as well as American ships would have to enter in ballast and earn their living out of export cargoes. What ships would do the business would be determined by other considerations than rates of duty. So long as in bulk our exports (regardless of values) exceed our imports, some ships must enter the United States in ballast and clear with cargoes. The situation in the United Kingdom would be the reverse, were it not that her exports of coal (62,000,000 tons, not including 19,000,000 tons of bunker coal) suffice to send a large ocean steamer loaded from England or Wales every hour for every day in the year. Cargoes both ways are naturally desirable for successful navigation, but they are not principally controlled by tariffs, and their presence or absence does not determine the nationality of the ships which do the business to be done.

The argument from natural adaptability may be pushed too far, Every fact which tells now against an American merchant marine in the foreign trade told with equal force within the memory of this generation against the creation of a modern navy, yet a navy second only to England's has been created within twenty years. As an abstract money-saving proposition in times of world-wide peace, perhaps the ideal condition for the United States would be the complete abandonment of the sea to those who can build the cheapest ships and sail them at the smallest cost. In that event we should rely for our ocean-mail transportation and express business on the fast steamships of the great maritime powers which build them according to naval plans and operate them avowedly to strengthen military and commercial power. For the transportation of exports and imports we should rely on cargo boats built cheaply in England, manned by the surplus population of Europe and Asia, and managed by the shrewdness of northern Europe. These are substantially the conditions which prevail in the ocean transportation business of the United States at present. They obtain in the ocean transportation business of no other considerable nation. The endeavors of other nations to maintain different conditions have been outlined. The reasons for those endeavors are, briefly:

1. An ocean merchant marine involving shipyards as well as ships and men is regarded as an essential element of national defense.
2. Regular connections under the national flag are regarded as essential between the mother country and distant insular possessions.
3. Regular connections are regarded as instrumentalities to push national trade, especially through superior mail and passenger steamships.
4. The prospects of perpetual peace are not regarded as sufficiently promising to justify a nation in intrusting its entire foreign commerce to the ships of powers which in the past at least have been from time to time involved in wars with one another while bystanding nations without shipping have found their means of transportation curtailed as did the United States in the Boer war.

AMERICAN FISHERIES BOUNTIES.

The fact is sometimes overlooked, particularly by those inclined to question the constitutionality of navigation bounties, that with the sanction of every President from Washington through Lincoln, from 1793 to 1866, the United States uninterruptedly followed the policy of paying bounties to the men and boats engaged in sea fisheries. These bounties for many years averaged $300,000 annually, and from 1793 to 1851 aggregated $10,055,877. From that time until they ceased in 1866 the payments are so included with other items in Treasury accounts that to ascertain the precise amounts paid annually would involve more labor than perhaps the information is worth. In Appendix O[a] the laws and payments of the United States are stated in some detail.

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[a] Not printed in this volume. See note on page 459.

DISCRIMINATING DUTIES.

The policy of discriminating duties on imports in foreign ships or discriminating tonnage duties on foreign ships is hopelessly impracticable. The response of other nations to our declaration of such a policy would be direct. They would impose discriminating duties or tonnage taxes on American ships in their ports. Such taxes would be no burden to their own people, because American ships carry only an insignificant per cent (7.3) of our exports. What we should try to gain for American ships at home they would lose abroad. No checkmate on the international commercial chessboard could be simpler. If instances in point are needed, our own early history and the French experiment of 1871–72 show the efficacy of the retaliation which the discriminating duty advocates would now invite.

Incidentally the necessary abrogation of all our commercial treaties would introduce bewildering confusion into every branch of our foreign commerce. From such confusion the farms of the interior would suffer with the factories of the seaboard and the railroads which unite them.

Indirect discriminations are equally futile. What if, beginning next year, trade between Brazil and the United States were confined to American and Brazilian ships, or with Argentina to American and Argentine ships, or with China to Chinese and American ships? The inquiry will provoke its own answer in the mind of every American and every citizen of those countries who has or hopes to have business dealings with one another.

TONNAGE TAXES.

Tonnage duties during the year amounted to $1,052,374.37, a decrease of $24,197.32 from the previous year. Of this amount American vessels paid $80,397.11 and penal or alien taxes in 17 cases to the amount of $4,265.26 were imposed. American rates are moderate by comparison with the corresponding charges imposed in European ports, and the tariff act of August 5, 1909, reduced by one-third the rate from near-by ports of the American hemisphere. While we collected $595,737.35 from British ships, we paid British ships substantially that amount for carrying the American ocean mails. We paid German ships for carrying the mails more than two and one-half times the tonnage taxes, aggregating $149,879.25, paid by German ships, while we paid Japanese ships for carrying the mails nearly four times the amount they paid in tonnage taxes. Such a liberal balance sheet probably is not shown in any other country in the world—in fact, some of the Mediterranean nations recoup themselves to a considerable extent from taxes on foreign shipping for the large subsidies and navigation bounties paid to national shipping. Their shipbuilding bounties, however, to a considerable extent are refunds of customs duties paid on the materials entering into national ships. These policies are not mentioned as especially to be imitated, but as illustrating the altruistic policy of our own country.

REPEAL OF RECIPROCAL TONNAGE-TAX EXEMPTIONS.

By section 36 of the tariff law of August 5, 1909, the so-called reciprocal tonnage-tax exemption laws of 1884 and 1886 were repealed and the rate of tonnage taxes on vessels from near-by foreign ports reduced from 3 cents to 2 cents, as recommended in the report of the Bureau for 1895 and in subsequent annual reports. The reasons for this change in law have been fully and frequently set forth. So long as our share in our foreign carrying trade continues so small there could be no reciprocal benefits under the former laws. While the loss of revenue has not been large, it could not be wholly overlooked. Again, it is reasonably certain that Great Britain will in time abolish her light-house dues, and in that event a claim would be made upon the United States for the repeal of tonnage taxes on vessels coming from the United Kingdom, which would amount to upward of $300,000 a year. In return for such a surrender of revenue American ships would receive exemptions in the United Kingdom of barely $8,000.

On the basis of entries during the past two fiscal years, section 36 of the tariff act, it is estimated, will make the following changes in receipts from tonnage duties:

	From foreign ships.	From American ships.
Increase:		
Netherlands	$36,000	
Dutch East Indies	8,000	
Copenhagen	18,000	
Panama	4,500	$1,500
Colombia	2,750	250
Ontario	12,000	22,000
	81,250	23,750
Decrease from 3-cent to 2-cent rate	41,369	15,183
Net results	+39,881	+8,567

The net result on the basis of tonnage taxes for the past two fiscal years will be an increase of $8,567 paid by American vessels and an increase of $39,881 paid by foreign vessels; total net increase, $48,448.

The object of the section was not to increase revenue, but to keep revenue as nearly as possible unchanged and to forestall the possibility of a heavy decrease in revenue in consequence of legislation pending abroad. During the month of its operation, no considerable difficulties have arisen under section 36 except on the Great Lakes and connecting rivers. The navigation of these waters is so exceptional that for nearly every phase of it Congress has enacted laws different from those which obtain on the seaboard. The distance to Canadian ports in many places is very short, and vessels on long voyages between domestic ports often have occasion to make short stops at intermediate Canadian ports. The peculiar situation could be met by a brief law providing that vessels entering otherwise than by sea at ports on the frontiers shall be exempt from the tonnage duties prescribed by section 36 of the act approved August 5, 1909.

FOREIGN-BUILT YACHT TAX.

Section 37 of the tariff act of August 5, 1909, provided a tax of $7 a gross ton, payable annually September 1, on the use of any foreign-built yacht owned by an American citizen. In lieu of this tax the owner may pay a duty of 35 per cent ad valorem and thereupon the yacht becomes entitled to American registry as if built in the United States. The administration of the section in so far as it involves a tax on tonnage has been transferred from the Treasury Department to the Bureau of Navigation, which also has charge of the issue of documents to yachts on which the ad valorem duty has been paid. A duty of $18,000 was paid in October on the steam yacht *Narada*, of Baltimore, 505 gross tons, built at Leith, Scotland, in 1889, and the yacht has been documented as a vessel of the United States. Annual tonnage tax at the rate of $7 a gross ton has been paid on four yachts, aggregating $17,854. Some yacht owners are contesting the constitutionality of the act, but in view of decisions of the Supreme Court in Hylton *v.* United States (3 Dall., 171) and the *Conqueror* (166 U. S., 110) Congress doubtless was well within its powers. The tax generally conforms to recognized canons of taxation, and is a legitimate measure to promote American shipbuilding. In one case, however, brought to the Bureau's notice, a foreign-built yacht, which had been burned, was almost wholly rebuilt, except the steel hull, in the United States. The collection of the tax on this yacht would be a hardship, as the yacht is essentially the product of American labor, though technically built abroad. Possibly there are other similar cases in which special acts granting American registers might prevent hardship, while preserving the purpose of the law.

REPORTS OF SHIPPING COMMISSIONERS.

Summaries of the work of shipping commissioners for the past fiscal year, so far as they can be expressed in statistical terms, are printed in Appendix A.[a] It is not practicable to reduce to intelligible tabular form the useful services of shipping commissioners in settling disputes, caring for seamen's property, tracing relatives, and similar work. At the beginning of the past fiscal year there were 20 shipping commissioners at the principal seaports, with 33 deputies and clerks, in all a force of 53, the same as for some years past. On November 1, 1908, the office of shipping commissioner at Belfast, Me., was abolished and the duties of the shipping commissioner transferred to the collector of customs, pursuant to section 4503 of the Revised Statutes. For some years past the Bureau has adopted the rule that where during a year the number of seamen shipped, reshipped, and discharged is less than 1,000, inquiry shall be made whether the office may not be discontinued with a saving to the Government without inconvenience to maritime interests. In accord with this practice the office of shipping commissioner at Pensacola, Fla., was discontinued, without reflection on the commissioner, on July 1, 1909. The discontinuance of the office at Pascagoula, Miss., was considered, but as Congress at the special session passed the act of July 2 creating Scranton (Pascagoula) a subport of entry no action was taken in view of the possible development of the port and the need for a shipping commissioner.

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[a] Not printed in this volume. See note on page 459.

The following summary shows the aggregate routine work and salaries of shipping commissioners for the past decade:

Year.	Seamen shipped, reshipped, and discharged.	Salaries.	Average cost per man.	Year.	Seamen shipped, reshipped, and discharged.	Salaries.	Average cost per man.
1900	142,632	$55,619.13	$0.39	1905	218,031	$59,282.67	$0.27
1901	160,377	59,379.84	.37	1906	227,892	60,595.23	.26
1902	176,886	58,988.36	.33	1907	259,570	61,716.60	.24
1903	197,918	60,938.79	.30	1908	307,299	63,585.16	.21
1904	201,273	61,548.12	.31	1909[a]	341,980	62,944.79	.18

[a] Not including Belfast, Me., abolished November 1, 1908.

The number of seamen shipped, reshipped, and discharged has risen from 142,632 in 1900 to 341,980 in 1909, an increase of 139 per cent in the volume of routine work. The amount of salaries paid to shipping commissioners and their clerks has risen from $55,619.13 in 1900 to $62,944.79 in 1909, an increase of 13 per cent. The average cost of services per man has decreased from 39 cents in 1900 to 18 cents in 1909. The satisfactory results are in the main due to the operation of acts of Congress, but in part may be attributed to some watchfulness by the Bureau over expenditures.

During the year 33 collectors of customs acting as shipping commissioners have shipped 1,718 seamen and discharged 876. Whenever during a year the number of seamen shipped, reshipped, and discharged before a collector of customs reaches 1,000 inquiry is made as to the desirability of establishing a shipping commissioner's office in the district. The table of work performed by collectors of customs as shipping commissioners in Appendix A[a] shows that there must be a material increase in work of this kind before the question of establishing additional shipping commissioners' offices will arise.

POWERS OF SHIPPING COMMISSIONERS.

The act of June 7, 1872, authorizing the appointment of shipping commissioners, provided that crews of every American ship bound to a foreign port or from a port on the Atlantic to a port on the Pacific should be shipped and discharged before those officers. Crews of fishing vessels paid on shares and of coastwise and of lake-going vessels were exempted from the law. To these exemptions the act of June 9, 1874, added vessels in trade with British North American possessions. The act of June 19, 1886, provided that at the request of the master or owner crews in the coasting trade or the nearby trade to Canada, Newfoundland, the West Indies, and Mexico could be shipped before shipping commissioners. During the past year 60,516 men were shipped and 142,870 men were discharged in those trades where resort to the commissioner's office was optional. Only 6,566 men were so shipped and 18,214 so discharged where the law was obligatory. These facts indicate satisfaction with the system of government supervision of contracts for labor at sea on the part of masters and owners as well as seamen. The Bureau has been urged to recommend the passage of a law making shipment and discharge before the commissioners obligatory on voyages to foreign ports or in the coasting trade beyond certain limits, 500 miles, for example. The system of government supervision has its advantages, and no disadvantages from this suggested extension are apparent. At the same time, the initiative in such legislation should come from those concerned directly in the system—seamen, masters, and owners. The subject is mentioned in order that it may be brought to the notice of those concerned in the event of the submission of a bill to Congress.

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[a] Not printed in this volume. See note on page 459.

Sections 4554–4555 of the Revised Statutes give shipping commissioners the power to arbitrate disputes concerning wages, claims, provisions, etc., between the master, owner, or agent and the crew in cases which both parties agree in writing to submit them. Awards made by the commissioners are binding on both parties and in a court of justice are conclusive as to the rights of parties. These sections are among the most useful of those relating to seamen, and they doubtless prevent considerable litigation and waste of time and money by all concerned. The assent of both parties to the arbitration is now required. The Bureau is disposed to believe that the powers of the commissioners could be extended so that on the application of either party to a dispute relating to wages, forfeitures, disrating, or allowance of provisions the shipping commissioner may render a binding decision, subject, of course, to judicial review. With this general purpose, the officers of United States district courts at various seaports where they have been consulted have expressed their sympathy. The plan should tend to expedite the settlement of disputes involving seamen. A measure to accomplish the result must be drafted with care, but it is hoped that it may be prepared for consideration during the winter.

NATIONALITY OF CREWS.

The men shipped and reshipped (including repeated voyages) by shipping commissioners on vessels of the United States during the past six fiscal years were classed by nationality as follows:

Nationality.	1904.	1905.	1906.	1907.	1908.	1909.
Americans (born)	34,125	37,098	37,676	44,095	52,065	58,692
Americans (naturalized)	21,425	22,511	23,456	25,737	28,718	31,078
British	18,868	13,790	14,517	16,606	19,964	21,572
Chinese	187	432	286	267	369	127
Japanese	446	587	586	614	585	686
Filipinos	36	57	59	52	120	185
Germans	4,087	4,178	4,368	5,276	6,158	6,158
Norwegians	6,956	6,019	6,477	6,810	8,182	9,031
Swedes	5,498	4,223	4,704	4,587	6,008	6,571
Danes	1,438	1,509	1,547	1,895	2,316	2,238
Russians	3,237	2,810	2,863	3,083	3,714	3,750
Austrians	914	1,145	1,267	1,160	1,430	1,527
French	584	562	530	638	630	762
Spanish	8,647	11,738	13,454	16,371	17,894	23,306
Italians	2,979	4,593	4,871	5,403	3,462	3,540
Portuguese	3,475	3,827	3,988	3,332	3,850	3,901
Others	4,923	5,314	5,639	6,910	7,603	7,858
Unknown	132	292	407	563	129	20
Total	112,957	120,635	126,745	143,899	163,192	180,942
Per cent Americans	49.2	49.4	48.2	48.7	49.5	49.6

These figures do not include, of course, seamen shipped abroad before consuls on American vessels. The 5 Pacific Mail steamers and the *Minnesota* thus ship about 1,200 Chinese, and parts of the crews of the American Line steamers are shipped at Southampton. Even including vessels in the coasting trade, the proportion among crews officially recorded of citizens (born or naturalized) is thus considerably less than half. Of 277,146 men employed on British ships registered in the United Kingdom 44,604 were Lascars or Asiatic British subjects and 37,694 were foreigners, British subjects (white) thus comprising 70 per cent of the crews. At Bremen in 1908 the crews of German ships comprised 27,992 German subjects and only 1,908 foreigners. The crews of French, Japanese, and Italian ships are almost wholly natives.

DESERTION OF SEAMEN.

The percentage of seamen who fail to report on board after having signed articles continues to show a satisfactory decrease. Following is the statement for recent years:

Year.	Shipped and reshipped.	Failed to join.	Per cent.	Year.	Shipped and reshipped.	Failed to join.	Per cent.
1902	108,554	4,278	3.94	1906	126,745	3,894	3.07
1903	120,785	5,187	4.29	1907	143,399	4,007	2.79
1904	112,957	3,857	3.41	1908	163,192	3,101	1.90
1905	120,782	3,273	2.71	1909	181,032	2,114	1.17

ALLOTMENT NOTES.

Well-founded complaints of abuses under the system of allotment notes for seamen, or "advance wages," as they were popularly termed, led to a considerable change of the system by section 24 of the act of December 21, 1898, which took effect February 20, 1899. The operations of that law have been traced from time to time. It has now been in effect for ten years, and the results have justified the anticipations of its advocates. During the last year of the old system the total number of allotment notes was 4,928; during the year ended June 30, 1909, the total number of allotments had shrunk to 858. The number of allotment notes to creditors in 1899 was 4,046; during the year just closed it was 774. The system, accordingly, which tended to keep seamen in debt is gradually shriveling. Of course this result is not entirely due to the statute. The steady disappearance of square-rigged ships has been a large factor in the result, and our decreasing share in foreign trade, in which alone allotment notes can be issued, has also had its effect.

The number of allotment notes issued to dependent relatives in 1899 was 882; in 1909 it was only 84.

The act of 1898 prohibited all allotments in the coasting trade on the theory that the voyages were so short and means of communication between domestic ports so easy that money could readily be transmitted through ordinary channels. The Bureau has been urged from time to time to favor a bill abolishing all allotments, but the preferable way is to allow the system to die a natural death under present law. It has also been urged to recommend an extension of the law so that allotments may be made to savings banks, but this suggestion is based on theory rather than on experience. Under the

British law such allotments may be made, but during the year 1908 out of 379,540 seamen on British ships who entered into foreign-going agreements only 54 availed themselves of the privilege of allotting part of their wages to savings banks. The suggestion has not seemed practical to the Bureau.

The number of allotment notes issued in recent years is shown below.

Year.	Creditors.		Relatives.	Total.
	Square-rigged.	All other vessels.		
1902	2,523	1,691	240	4,454
1903	2,005	1,870	284	4,159
1904	1,966	1,513	287	3,766
1905	1,595	919	304	2,818
1906	1,492	421	309	2,222
1907	1,328	490	239	2,052
1908	967	393	133	1,493
1909	660	114	84	858

SHIPPING AGENTS.

Among other purposes, the offices of shipping commissioners were created to furnish facilities for the employment of seamen. To a considerable extent they fulfill that purpose. The seamen's union at many ports has offices to secure employment for the members of that organization, and at New York and some other principal seaports religious and charitable organizations maintain agencies for the same purpose. Outside of these instrumentalities, none of which is maintained for direct pecuniary gain, there is a considerable class of men, known as shipping agents, or, in sailor's parlance, "crimps," whose business it is, for a price, to secure crews for ships, American and foreign. While this business is doubtlessly conducted honorably and honestly in some instances, in others it is the means of extortion from seamen and masters, and is, in fact, an agency to promote desertion, drunkenness, and shanghaiing. Several of the States, notably Oregon and Washington, have undertaken, unsuccessfully, to deal with the situation by state license laws. The license system is provided by the British and German law. In its report for 1896 the Bureau favored a system of federal licenses of shipping agents, recommended by the maritime associations of New York and Philadelphia. Such a system is still deemed desirable.

REMISSION OR MITIGATION OF FINES, PENALTIES, AND FORFEITURES.

In the first instance, applications for the mitigation or remission by the Secretary of Commerce and Labor of fines, penalties, and forfeitures under the navigation laws are considered in the Bureau of Navigation. During the past fiscal year the power has been exercised in 1,134 cases. In many other cases, of course, the applications were denied. Following is a summary of the 1,134 cases classed according to the ports from which violations were reported by collectors of customs and the statutes violated, together with a summary of the totals of such cases during the five previous fiscal years.

Port.	Total.	Steamboat laws (4399-4500, R. S.).	Surrendered license (4325, 4326, R. S.).	Rules of road (June 7, 1897), Great Lakes and St. Marys River.	Bills of health (Feb. 15, 1893).	Anchorage rules (May 16, 1888).	Passenger act (Aug. 2, 1882).	Inspection of enrollment and license (4336, R. S.).	Master's report on arrival (2774, R. S.).	Name on vessel (4178, R. S.).	Change of master (4335, R. S.).	Unlading (2872, R. S.).	Miscellaneous.
Apalachicola	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Astoria	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Baltimore	26	5	.....	7	7	.....	.....	1	.....	4	.....	.....	2
Beaufort, S. C	2	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boston	11	.....	.....	.....	4	.....	1	1	1	2	.....	.....	2
Bridgeport	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Brunswick	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Buffalo	8	1	.....	3	.....	.....	.....	.....	.....	2	.....	.....	2
Burlington, Iowa	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burlington, Vt	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape Vincent	5	.....	.....	4	.....	.....	.....	1	.....	.....	.....	.....	.....
Chicago	5	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Cincinnati	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cleveland	8	.....	.....	4	.....	.....	.....	.....	.....	4	.....	.....	.....
Crisfield	13	1	1	7	.....	.....	.....	.....	.....	4	.....	.....	.....
Detroit	42	.....	.....	35	.....	.....	.....	.....	2	2	.....	.....	3
Duluth	14	2	.....	10	.....	.....	.....	.....	1	.....	.....	.....	1
Eastport	9	.....	.....	8	.....	.....	.....	.....	.....	1	.....	.....	.....
Edgartown	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Elizabeth City	11	4	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fall River	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galveston	9	2	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	1
Grand Haven	24	5	.....	16	.....	.....	.....	.....	.....	2	.....	.....	1
Gulfport	2	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Honolulu	17	5	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	11
Jacksonville	11	3	1	3	1	.....	.....	.....	.....	3	.....	.....	.....
Juneau	8	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Key West	4	.....	.....	.....	1	.....	.....	.....	1	2	.....	.....	.....
Los Angeles	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marquette	13	6	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....
Milwaukee	19	.....	.....	13	.....	.....	.....	.....	.....	6	.....	.....	.....
Mobile	7	.....	.....	4	3	.....	.....	.....	.....	.....	.....	.....	.....
Memphis	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Natchez	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Bedford	2	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....
New Haven	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
New London	2	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
New Orleans	12	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	.....	4
Newport News	28	3	1	13	.....	.....	.....	2	.....	8	.....	.....	1
Newport, R. I	2	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
New York	635	38	26	505	21	3	16	6	1	8	.....	4	7
Norfolk	37	5	.....	23	1	.....	.....	1	1	4	.....	.....	2
Ogdensburg	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oswego	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pensacola	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Perth Amboy	3	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Philadelphia	8	4	.....	1	.....	.....	.....	.....	.....	3	.....	.....	.....
Port Arthur	3	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2
Port Huron	7	.....	.....	4	.....	.....	.....	.....	.....	3	.....	.....	.....
Portland, Me	3	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Portland, Oreg	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Port Townsend	29	8	.....	11	.....	.....	.....	.....	.....	1	.....	.....	9
Providence	11	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Richmond	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sandusky	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
San Juan	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
San Francisco	20	4	1	.....	6	.....	2	2	....	.....	.....	.....	5
Sioux City	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
St. Louis	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Paul	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tampa	10	.....	.....	4	5	.....	.....	.....	.....	.....	.....	.....	1
Waldoboro	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Washington	4	3	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wheeling	5	3	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1,184	151	33	710	69	3	21	14	7	59	0	4	63
Total:													
1909 (64 ports)	1,184	151	33	710	69	3	21	14	7	59	0	4	63
1908 (73 ports)	852	245	12	385	42	6	21	23	18	30	7	2	61
1907 (66 ports)	684	209	33	92	86	18	62	9	23	52	27	5	68
1906 (77 ports)	670	194	114	130	41	13	27	10	6	49	5	9	72
1905 (63 ports)	524	142	99	53	42	13	21	26	7	20	11	28	62
1904 (66 ports)	706	184	101	93	48	49	16	29	12	24	19	(a)	131

[a] Included under "Miscellaneous" in 1904 report.

The history of the bestowal of the power of mitigation or remission, which dates back to the act of May 26, 1790, and the general nature of the cases covered by the table above were considered at length in the Bureau's report for 1904, pages 47–77, and in the reports for 1905 and 1906. Either this power must be exercised or numerous changes should be made in the penalty sections of many of our laws. Clearly, for example, it never could have been the purpose of Congress to require a penalty of $5,000 for failure to produce only one consular bill of health, which the act of 1893 requires to be issued in duplicate, nor to impose the confiscatory penalty of $250 on a motor boat only 15 feet long for failure to carry a second range light on a staff 15 feet high.

The increase in the number of cases does not indicate a growing disregard of law, but rather a more thorough enforcement of the law by collectors of customs. This more thorough enforcement, in turn, is due to the fact that in some instances collectors of customs have been furnished with better facilities for the performance of their duties. The increase in the number of cases above during the past two years comes mainly from the fact that the collector of customs at New York has been supplied with a patrol boat in order to carry out the laws requiring the thousands of motor boats in the harbor and river to be so equipped as to prevent collision. No reports of violations of law have been made during the year by collectors of customs at the following ports:

Alexandria, Va.; Annapolis, Md.; Bangor, Me.; Barnstable, Mass.; Bath, Me.; Beaufort, N. C.; Belfast, Me.; Brashear, La.; Bridgeton, N. J.; Brownsville, Tex.; Cape Charles City, Va.; Castine, Me.; Cedar Keys, Fla.; Charleston, S. C.; Coos Bay, Oreg.; Corpus Christi, Tex.; Dunkirk, N. Y.; Eagle Pass, Tex.; El Paso, Tex.; Ellsworth, Me.; Erie, Pa.; Eureka, Cal.; Fernandina, Fla.; Georgetown, S. C.; Gloucester, Mass.; Great Falls, Mont.; Hartford, Conn.; Kennebunk, Me.; Machias, Me.; Marblehead, Mass.; Nantucket, Mass.; Newbern, N. C.; Newark, N. J.; Newport, Vt.; Newburyport, Mass.; Niagara Falls, N. Y.; Nogales, Ariz.; Pembina, N. Dak.; Petersburg, Va.; Pittsburg, Pa.; Plattsburg, N. Y.; Plymouth, Mass.; Portsmouth, N. H.; Rochester, N. Y.; Sag Harbor, N. Y.; Salem, Mass.; San Diego, Cal.; Savannah, Ga.; Somers Point, N. J.; St. Augustine, Fla.; St. Marys, Ga.; Stonington, Conn.; Tappahannock, Va.; Toledo, Ohio; Tuckerton, N. J.; Vicksburg, Miss.; Wilmington, Del.; Wilmington, N. C.; Wiscasset, Me.; Yaquina, Oreg.; York, Me.

ENFORCEMENT OF LAW.

It can not be presumed that at all these ports there was entire compliance with the laws under consideration. In some it is conceivable that no effort was made to secure compliance, and in others probably the collectors had no means of ascertaining whether the laws were obeyed except by casual observation from the shore. Something can be accomplished in that way, but very little. Some of these laws deal with those phases of safety to life which are especially intrusted to the Federal Government. Collectors of customs, accordingly, should be enabled to be on the water from time to time where the violations occur. In some of the principal cities with extensive water fronts the municipal police are furnished with patrol boats, and collectors of customs in such cities, at the instance of the Bureau have requested the city authorities to report to them violations of the navigation laws which come to the notice of the river or harbor police boats. The United States revenue cutters have been of considerable assistance, but of late years the organization of that service has materially changed. Its vessels are now large seagoing steamers, and are no longer at the disposal of collectors of customs. They are, of course, expensive to operate and much more formidable vessels than are needed for the purposes under consideration. Small launches or motor boats chartered from time to time for a few nights a month would accomplish much toward uniform enforcement of the laws at all ports.

As far back as 1799 Congress authorized the Secretary of the Treasury to buy or charter small boats for collectors of customs, to enable them to prevent smuggling. Such small boats can be used more effectively now for the enforcement of certain of the navigation and inspection laws, but the act referred to does not authorize that use. The passage of the following bill will accomplish the results desired in an effectual and economical manner:

A BILL To amend section twenty-seven hundred and sixty-three of the Revised Statutes and for the better enforcement of the navigation laws.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section twenty-seven hundred and sixty-three of the Revised Statutes be hereby amended to read:

"SEC. 2763. The collector of each district or principal customs officer at each port may, with the approval of the Secretary of the Treasury, provide such small vessels and employ such persons as shall be necessary for the use of surveyors and inspectors in boarding vessels and otherwise for the better detection of frauds, and for the enforcement by them of the laws relating to the navigation and inspection of vessels and the counting of passengers on excursion boats. So much of the permanent annual appropriation to defray the expenses of collecting the revenue from customs as may be necessary to carry out the provisions of this section is hereby appropriated."

The penalties collected from those who violate the law would suffice to cover the expenses involved in carrying out the act proposed. Up to the sundry civil act of March 4, 1907 (34 Stat., 1315), these fines were in fact turned into the fund to defray the expenses of collecting the revenue from customs. It would be obviously absurd to have a collector of customs employ one launch to enforce the customs laws and another launch to enforce the navigation laws, and it would be quite unnecessary to state two accounts to two auditors for the cost of one launch. The proposition above has been submitted to the Secretary of the Treasury, and was approved by him on May 8, 1909.

MOTOR OR POWER BOATS.

About 600 of the applications for mitigation of penalties included in the statement on page 450 were the cases of motor boats, usually for being without legal lights or other appliances prescribed for preventing collisions. The international rules for preventing collisions at sea, framed in 1890 and carried into effect in 1897, contain this definition: "The words 'steam vessel' shall include any vessel propelled by machinery." The inland rules of 1897 and the rules of 1895 for the Great Lakes and St. Lawrence River contain the same definition. The effect of the definition is to prescribe under heavy penalties the same lights and other equipment for small motor boats as for steamers. At the time these rules were approved by the International Maritime Conference at Washington and subsequently by acts of Congress, motor boats were practically unknown, though there were some vessels propelled by electricity. A year ago, on returns from collectors of customs, the Bureau estimated the number of motor boats in the United States at 40,000, and it is now certain that the number was underestimated. The number now has been estimated at over 100,000.

The facts concerning motor boats come under general observation, so they need not be dwelt upon. The laws mentioned require these boats at night to carry a range of white lights. The after light must be 15 feet higher than the light at the head of the vessel on the seaboard, and on the Great Lakes the forward light must be 20 feet above the hull. Thousands of these motor boats are only 15 to 18 feet long, or thereabouts, and the staff to carry the range light is thus as high as the boat is long—a physical impossibility or an actual menace to safety. This law can not be enforced. The laws also require inboard screens projecting at least 3 feet forward of the red and green side lights. A steam vessel is required to carry both a whistle sounded by steam, or some substitute for steam, and a fog horn. Motor boats which have no steam are required to carry both. This law can not be enforced, and wherever a motor boat has been reported for having a whistle, but no fog horn, the Department has remitted the penalty. Motor boats need only the whistle. The bell is used only to indicate a vessel at anchor in the fog. Thousands of motor boats carry no anchor and never are at anchor—or indeed under way in a fog. The laws in such cases impose a penalty for failure to carry an article never needed.

On the other hand, life preservers, which may be needed at any time on any motor boat, are required only on motor boats of 15 gross tons or less carrying passengers for hire. Not even a rudimentary knowledge of the " rules of the road " is required from the boys and young men licensed to operate motor boats, except those over 15 gross tons carrying freight or passengers.

Only small motor boats have been considered in the main in what has just been said. There are motor boats upward of 800 gross tons, and not infrequently large motor boats carry from 50 to 75 passengers, and possibly more. No limit is imposed by law on the number of passengers, though on competing steam vessels, whatever the tonnage be, the number of passengers is fixed under heavy penalties. This discrimination causes well-founded complaint.

The Bureau would not be understood as favoring the general inspection of all motor boats. The inspection service now inspects annually about 8,000 vessels, of which about 300 are motor boats, at a cost of $500,000, and the extension of the system to perhaps 100,000 motor boats, many in inaccessible places, would involve an increase in officers and expense far beyond proportionate benefit. Probably the most satisfactory method of meeting the situation, which calls for some action, would be by the passage of an act consolidating and amending present laws relating to motor boats and including these with such additions as may be desirable in one law treating exclusively of motor boats.

WIRELESS APPARATUS ON PASSENGER SHIPS.

At the last session of the Sixtieth Congress a bill passed the House of Representatives requiring radio-telegraphic installations on all seagoing passenger ships, American or foreign, carrying 50 passengers or more, departing from American ports in the foreign trade or coastwise trade on voyages by sea between ports more than 200 miles distant. The bill reached the Senate too late for consideration. Similar bills have been introduced in the Senate and House of Representatives of the Sixty-first Congress, and the passage of such a measure is recommended. With the commercial phases of wireless telegraphy the Bureau is not concerned. Evidently the chances of success of a wireless telegraph company, as of a telephone company on shore, increase with the number of its stations. The present principal use of wireless telegraphy is as a means of communication between ship and shore or vice versa. Consequently wireless telegraph corporations have the keenest interest in supplying their apparatus to ships on which there is a likelihood of its use by passengers. While there are charges for the installation of the plant on shipboard, there is reason to believe that these charges are moderate, especially in the case of ships with a large cabin passenger list.

In the past two years wireless telegraphy has repeatedly demonstrated its value as an instrument to promote the safety of life and property at sea. Instances of its effective use for this purpose are so generally known that argument based upon them is unnecessary. Its value, in fact, is such that marine underwriters are considering the question whether the presence of the apparatus on board should not lead to a material reduction in marine insurance premiums. The use of wireless telegraphy at sea has already become so general that little or no hardship would be involved in a statute requiring all vessels of the kind designated to be equipped. During the first six months of the current calendar year 282 ocean steamers carried steerage passengers to the United States under the provisions of the passenger act of 1882. Of that number, 143, aggregating 1,593,000 gross tons, were equipped with wireless apparatus, and 139, aggregating only 646,000 gross tons, were not so equipped. A list of those ships may be found in Appendix M.[a] The ships equipped, taken together, had a capacity of 174,000 passengers, of whom 27,000 were cabin passengers and 147,000 steerage passengers. These ships embraced nearly all of the largest and highest class passenger ships in trans-Atlantic trade. The ships not so equipped had a capacity of 61,000 passengers, of whom 6,000 were cabin passengers and 55,000 were steerage passengers. Generally speaking, these ships were the older and slower ships, especially devoted to certain branches of the trans-Atlantic steerage or immigrant trade. From the point of view of safety to life it is quite as important that such ships should be as well equipped as ships more particularly employed in the cabin passenger trade. Of course the commercial receipts of a wireless station on board an immigrant ship would be relatively small, and such an installation should be classed purely as a safety appliance. The situation on our coastwise American ocean passenger steamers is quite similar. Of 167 such steamers, carrying 50 passengers or more on routes at sea between ports 200 miles or more distant, 97, of 376,000 gross tons, were equipped with radio-telegraphic apparatus, and 70, of 145,000 gross tons, were not so equipped. The vessels equipped have a passenger capacity of 32,000; those not equipped of 18,000. In the coastwise trade the distinction between cabin and steerage passengers is not prescribed by statute. A law requiring all passenger ships of the type mentioned to be equipped with apparatus for radio-communication accordingly would, in effect, adopt as a statutory standard of responsibility for safety to life a standard already voluntarily adopted by the owners of two-thirds of the tonnage, American and foreign, in the ocean passenger trade of the United States.

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[a] Not printed in this volume. See note on page 459.

Through the liberality of Congress the Navy Department has established, as a measure of national defense, a comprehensive system of wireless shore stations at principal points on our Atlantic, Pacific, and Gulf coasts, on the Isthmus, in Porto Rico, Alaska, Hawaii, and the Philippines. The War Department has its stations and the several wireless corporations have also numerous shore stations. The transmission of wireless messages between San Francisco and Hawaii has been effected readily. By exchanging messages from ship to ship, vessels crossing the Atlantic are now in constant touch with the shores of America and England. On one occasion the American S. S. *Minnesota*, crossing the Pacific, is reported to have been in daily communication with the land, and the *Korea* has been reported as in simultaneous communication with American and Asiatic coasts. Congress already, accordingly, through the well-directed energies of the War and Navy departments, has done very much to render practicable communication with the shore from a ship almost anywhere within 300 miles of our coasts. Since the adjournment of Congress the British Government has purchased the wireless shore stations on the coasts of the United Kingdom, so that reasonable communication for ships with that side of the Atlantic is assured. Indeed, so rapidly is wireless telegraphy being accepted as a national necessity that even the extensive coasts of Brazil, under the auspices of its Government, are being equipped with wireless stations, though the sea-borne commerce passing those coasts is small by comparison with that of the North Atlantic.

There are several systems of wireless telegraphy in more or less general use. If Congress shall conclude to prescribe wireless installations on passenger ships, evidently the compulsory interchange of messages relating to the safety of the ship and to essential facts of navigation should be required as a condition to the acceptance of any apparatus. Such compulsory interchange of all messages was provided for in the Berlin radio-telegraphic convention of 1906, which is awaiting action by the Senate. The objections made to that treaty by interested parties would not apply to the suggestion just made. Wireless telephony has made progress.

The matter of the regulation by statute of the tolls to be charged for messages relating to safety or the price or rentals of installations on shipboard involves a discussion of the general policy of the fixing of rates and prices by legislation or administrative agencies which will not be looked for in this report.

BRUSSELS CONFERENCE ON MARITIME LAW.

The Third International Conference on Maritime Law, for which Congress provided American representation, was held in Brussels in September and October. It was attended by representatives of 24 powers and considered draft conventions to provide uniformity in laws governing damages in cases of collision, salvage, shipowners' liability, and maritime mortgages and liens. The conference is now in recess until the end of March to allow various delegations which, like the American and British, participated *ad audiendum et ad referendum*, to refer the conclusions reached to their respective governments. While the United States has very few ships in foreign trade, its export interests are among the largest of those represented at the conference, and the propositions before the conference accordingly are of interest to our inland as well as to our seaboard States. The representation of the United States at the final session after Easter should be continued, and the necessary appropriation be made for the purpose. Complete reports of the proceedings in October have not yet been received.

INTERNATIONAL RULES OF THE ROAD.

A proposition to amend the revised international rules for preventing collisions at sea has been presented by the British Government to the maritime powers. A new paragraph is proposed providing a special night signal to be exhibited by vessels towing targets, timber rafts, or other objects upon which it is impossible to place a light. The special signal consists of three lights visible all around the horizon and placed not less than 3 feet apart from each other in a vertical line astern of the towing vessel, the lowest light being white and the other two lights red. The proposition will be presented to those interested in the subject in this country. It has already been approved by the leading associations of shipowners in the United Kingdom. At a favorable opportunity the proposition to incorporate compulsory range lights in the international rules, offered by the American delegates at the Washington conference, will again be put forward. It now has the approval of Norway.

FORECASTLE ACCOMMODATIONS.

The acts of March 2, 1895, and March 3, 1897, provided increased forecastle accommodations for seamen and apprentices. Those acts were in several particulars in advance of British law on the subject. The British merchant shipping act of 1906, however, provides that in all seagoing ships of 300 tons or over, the construction of which began after January 1, 1907, the space allotted to each seaman should not be less than 120 cubic feet and not less than 15 superficial feet measured on the deck. The American minimum is 100 cubic feet. The new British law contains the following useful provision:

> In estimating the space available for the proper accommodation of seamen and apprentices, there may be taken into account the space occupied by any mess rooms, bath rooms, or washing places appropriated exclusively to the use of those seamen and apprentices, so, however, that the space in any place appropriated to the use of seamen or apprentices in which they sleep is not less than seventy-two cubic feet and twelve superficial feet for each seaman or apprentice.

The purpose of the provision is to encourage generally the construction of ample mess rooms and bathrooms for seamen on British steamers now being built. Some of the best equipped American and British ocean steamers already have such accommodations. The passage of a similar law to apply to American seagoing vessels, the construction of which may be begun after January 1, 1911, is recommended.

DEDUCTIONS FOR PROPELLING POWER.

The gross tonnage of a ship is the entire internal cubical contents, sheltered from the weather, expressed in tons of 100 cubic feet each. The net tonnage is that portion presumably devoted to cargo and passengers—the money-earning part of the ship. It is ascertained by deducting from the gross tonnage (*a*) spaces set apart for the officers and crew and for minor purposes of navigation, and (*b*) on steamers, the spaces occupied by boilers, machinery, and bunker coals—the propelling power. The deduction for propelling power is made according to measurement and mathematical formulæ. (Navigation Laws, 1907, pp. 27–28.) Theoretically and in most cases the deduction for machinery does not exceed 32 per cent of the gross tonnage. The formulæ, applied to some of the newest high-powered trans-Atlantic steamships, built as naval auxiliaries, work out very large deductions in proportion to the actual earning spaces of the ship. The following types of the best high-powered steamships under various flags will illustrate:

Steamship.	Flag.	Gross tons.	Net tons.	Deductions.	Per cent deducted.
St. Louis	American	11,629	5,894	5,735	49
Lusitania	British	31,500	9,145	22,405	71
Kaiser Wilhelm II	German	19,361	6,358	13,003	67
La Provence	French	13,753	3,834	9,919	72
Tenyo Maru	Japanese	13,454	7,265	6,189	46
Duca degli Abruzzi	Italian	7,793	4,141	3,652	47
Total		97,490	36,632	60,903	58

On the net tonnage of the ship government charges and various private charges are based. A deduction, due to formulæ proper in most cases but not adapted to exceptional construction, works inequitably. The British rules were, accordingly, amended by the act of August 28, 1907, to provide that deductions for propelling power shall not exceed 55 per cent of the gross tonnage after crew spaces, etc., have been subtracted. The passage of a similar law is recommended. The British law will not apply until January 1, 1914, to ships built or ordered before May 19, 1907. An American law, if enacted, might take effect in 1914 or at an earlier date.

COASTWISE PASSENGER TRADE.

Section 4347 of the Revised Statutes as amended on February 17, 1898, provides:

> No foreign vessel shall transport passengers between ports or places in the United States, either directly or by way of a foreign port, under a penalty of $200 for each passenger so transported and landed.

The purpose of the law was to reserve to American vessels the carrying of passengers between domestic ports. The courts have held, however (*Princess Beatrice* case and United States *v.* 250 Kegs of

Nails, 61 Fed., 210), that while one foreign ship can not transport passengers between domestic ports, the same result can be attained by two foreign ships. Thus a passenger from Seattle to Nome, Alaska, may take a foreign ship from Seattle to Victoria, British Columbia, and there take another foreign ship for Nome. In the same manner a passenger by sea from San Francisco to New York can take a foreign ship from San Francisco to the Isthmus, and there take another foreign ship to New York. The law governing transportation of cargo coastwise is adequate, and the law governing the transportation of passengers coastwise should be made to conform to it.

DISCRIMINATION AGAINST SAIL VESSELS IN COASTING TRADE.

The most efficacious measure to promote the interests of American sailing vessels would be an act exempting from compulsory pilotage under state laws sail vessels in the coasting trade. The reasons for this statement have been set forth in detail in former reports.

ENTRY AND CLEARANCE COASTWISE.

By the act of May 12, 1906, the Atlantic coast from Maine to Texas was made one great coasting district in order to facilitate the coasting trade. Sections 4349 to 4360, inclusive, of the Revised Statutes were enacted on February 18, 1793, before the existence of railroads and steamships, and contain requirements now unnecessary as a protection to the revenue and impediments to the dispatch of business by American steamers competing with American railroads. The grain trade of the Great Lakes could be facilitated, without risk to the revenue, if section 3109, Revised Statutes, were so amended that the entire fleet from Canada to Chicago and other Lake Michigan ports were not required first to enter at Cheboygan. After consultation with the Treasury Department a modification of these statutes may be recommended.

STOWAWAYS.

Neither the navigation laws nor the immigration laws contain any precise provisions concerning stowaways. Under the immigration laws they are treated as alien immigrants, for whom head tax must be paid. The navigation laws merely provide in section 4514, Revised Statutes:

> But the vessel shall not be held liable for any person carried to sea, who shall have secretly stowed away himself without the knowledge of the master, mate, or of any of the officers of the vessel, or who shall have falsely personated himself to the master, mate, or officers of the vessel, for the purpose of being carried to sea.

The stowaway is one who tries to "steal a ride" at sea. Under British law he is punishable by fine or, in the discretion of the court, by imprisonment not exceeding four weeks. This law affords the master of the ship some protection. Under our law the stowaway, when detected, can snap his fingers at the master, because when the ship has begun her voyage he can not be put ashore. The stowaway is in effect a petty thief, and no good reason appears why he should not be punished as such. A law to this effect is recommended.

MEASURING INSTRUMENTS.

The estimates for the Bureau this year contain this new item:

For tools, appliances, and instruments for the admeasurement of vessels and the counting of passengers, one thousand dollars.

Hitherto these instruments have been paid for out of the Department's contingent fund, so no new actual expenditure is involved. The Bureau is charged with the admeasurement of vessels, and may properly select the instruments used. On the accurate measurement of vessels depend various government charges at home and abroad and certain private charges as well. Tonnage also determines the classification of vessels for certain purposes of the navigation and inspection laws. Questions have arisen as to the accuracy of American and foreign measurements of various foreign vessels, and our instruments must be the best.

Respectfully,

Eugene Tyler Chamberlain,
Commissioner.

To Hon. Charles Nagel,
Secretary of Commerce and Labor.

Note.—The report of the Commissioner of Navigation, as separately published, contains also the following appendixes and statistical tables:

APPENDIXES.

(A) Reports of shipping commissioners for year ended June 30, 1909—(1) Shipments, discharges, and expenditures; (2) Shipments and reshipments of seamen; (3) Number of men discharged; (4) Nationality of seamen; (5) Failures of seamen to join American vessels; (6) Men shipped to be discharged in foreign ports; (7) Allotments of wages of seamen; (8) Seamen shipped and discharged by collectors.

(B) Wages of seamen—(1) Average monthly wages paid in the American merchant marine, year ended June 30, 1909; (2) Average monthly wages paid to able seamen on American vessels, 1895–1909; (3) Average monthly wages paid to first mates on American vessels, 1895–1909; (4) Average monthly wages paid to firemen and first engineers on American steam vessels, 1895–1909; (5) Average monthly wages on American steamship *Siberia*, Japanese steamship *Tenyo Maru*, and German steamship *Kaiser Wilhelm der Grosse*.

(C) Consular reports of seamen shipped, discharged, and deserted from American vessels in foreign ports, year ended June 30, 1909.

(D) Tonnage tax—Law and collections—(1) Tonnage tax collections, 1896–1909; (2) Collections, year ended June 30, 1909, by ports; (3) Collections, year ended June 30, 1909, by nationality of vessels.

(E) Steel shipbuilding of the United States—(1) Steel steam vessels built in the United States during the past ten years; (2) Steel vessels building or contracted for in the United States on July 1, 1909; (3) Price per ton of 2,240 pounds of steel ship plates in the United States and Great Britain for each month from October, 1900, to August, 1909.

(F) The world's tonnage, motive power, and materials of construction—(1) World's tonnage based on official returns, 1850–1907 (from Return on Progress of British Shipping for 1908); (2) Number and net and gross tonnage of steam and sailing vessels as recorded by the Bureau Veritas for 1908–9; (3) Number and net and gross tonnage of steam and sailing vessels of over 100 tons, of the several countries of the world, as recorded in Lloyd's Register for 1909–10; (4) Motive power and chief materials of construction of the world's merchant marine (Lloyd's); (5) Total number and tonnage of steam vessels (over 100 tons) and sailing vessels (over 50 tons), 1890–1909 (Bureau Veritas); (6) Construction—Vessels built in the world (over 100 tons), according to Lloyd's (including vessels not recorded in Lloyd's), during ten recent years; (7) Shipbuilding at home and abroad in 1908 (Lloyd's summary); (8) Vessels under construction September 30, 1909 (Lloyd's); (9) Number, tonnage, and nationality of vessels totally lost, condemned, etc., during 1908, as reported up to July 1, 1909; also the number and tonnage of steam vessels owned in each country.

(G) The world's large and fast ocean steamships—Classification, by owners, flag, and speed.

(H) Progress of British, German, and Japanese shipping.

(I) British shipping policy—(1) British ocean mail payments for 1908-9; (2) Foreign and colonial packet service, 1840-41 to 1907-8; (3) British reserve merchant cruisers; (4) British naval reserve appropriations.

(J) Registered steam vessels of the United States on June 30, 1909.

(K) Statistics of square-rigged American vessels.

(L) Distances between important seaports of the United States and between said ports and principal seaports of the rest of the world.

(M) Wireless-telegraph equipment of all vessels operating under the passenger act of 1882 and of all American coastwise passenger steamers.

(N) Foreign subsidies, navigation bounties, fishing bounties, etc.

(O) American fisheries bounties.

(P) Miscellaneous—(1) Foreign carrying trade of the United States, 1821-1909; (2) Tonnage of American and foreign vessels entered and cleared in the foreign trade of the United States, 1821-1909; (3) Subsidy bills now before Congress.

STATISTICAL TABLES.

(1) Number and gross tonnage of documented vessels of the United States, by customs districts, June 30, 1909.

(2) Number and gross tonnage of documented vessels of the United States, by States and Territories, June 30, 1909.

(3) Number and gross tonnage of documented steam vessels of the United States, by customs districts, June 30, 1909.

(4) Number and gross tonnage of documented metal vessels of the United States, by customs districts, June 30, 1909.

(5) Number and gross tonnage of documented steam metal vessels of the United States, by customs districts, June 30, 1909.

(6) Class, number, and gross tonnage of metal vessels of the United States, by customs districts, June 30, 1909.

(7) Number and gross tonnage of each class of documented wooden and metal vessels of the United States, June 30, 1909.

(8) Balance sheet of tonnage accounts, showing the increase and decrease in documented vessels, June 30, 1909.

(9) Balance sheet of tonnage accounts, showing the increase and decrease in each class of vessels, June 30, 1909.

(10) Documented sailing and steam tonnage constituting the total merchant marine of the United States, 1789-1909.

(10*a*) Number and gross tonnage of canal boats and barges documented in the United States, 1868-1909.

(10*b*) Number and gross tonnage of sailing vessels, steam vessels, canal boats, and barges documented on the northern lakes, 1868-1909.

(11) Number and gross tonnage of sailing vessels, steam vessels, canal boats, and barges in the United States, by customs districts, June 30, 1909.

(12) Number and gross tonnage of sailing vessels, steam vessels, canal boats, and barges in the United States,, by States, June 30, 1909.

(13) Sailing and steam vessels of the United States, according to size, June 30, 1909.

(14) Number and gross tonnage of vessels of the United States engaged in the cod and mackerel fisheries, by customs districts, June 30, 1909.

(15) Number and gross tonnage of vessels of the United States engaged in the whale fisheries, by ports, June 30, 1909.

(16) Employment of the tonnage of the United States, by classes, June 30, 1909.

(17) Documented tonnage of the United States merchant marine employed in the foreign trade, the coasting trade, and the fisheries, 1789-1909.

(18) Class, number, and gross tonnage of vessels built in the United States and documented during year ended June 30, 1909, by customs districts.

(19) Class, number, and gross tonnage of sailing vessels built in the United States and documented during year ended June 30, 1909.

(20) Class, number, and gross tonnage of steam vessels built in the United States and documented during year ended June 30, 1909.

(21) Class, number, and gross tonnage of steel vessels built in the United States and documented during year ended June 30, 1909.
(22) Class, number, and gross tonnage of vessels built in the United States and documented, 1797–1909.
(23) Number and gross tonnage of vessels built in the United States and documented, 1857–1909.
(24) Class, number, and gross tonnage of metal vessels built in the United States and documented, 1838–1909.
(25) Tonnage of vessels of the United States which have been built, admitted to registry by acts of Congress, etc., and those which have been lost, abandoned, sold to aliens, etc., 1813–1909.
(26) Class, number, and gross tonnage of documented yachts of the United States, by ports, June 30, 1909.
(27) Class, number, and gross tonnage of documented metal yachts of the United States, by ports, June 30, 1909.
(28) Class, number, and gross tonnage of yachts built in the United States and documented, by customs districts, June 30, 1909.
(29) Class, number, and gross tonnage of metal yachts built in the United States and documented, by ports, during year ended June 30, 1909.
(30) Class, number, and gross tonnage of documented yachts lost, abandoned, sold to aliens, etc., year ended June 30, 1909.

REPORT

OF THE

SUPERVISING INSPECTOR-GENERAL, STEAMBOAT-INSPECTION SERVICE

REPORT

OF THE

SUPERVISING INSPECTOR-GENERAL,
STEAMBOAT-INSPECTION SERVICE.

Department of Commerce and Labor,
Steamboat-Inspection Service,
Washington, October 14, 1909.

Sir: I have the honor to submit to you the following report of the operations of the Steamboat-Inspection Service for the fiscal year ended June 30, 1909, as required by section 4403, Revised Statutes, and under Department regulations relating thereto.

PERSONNEL.

The total number of persons in the Service at the end of the fiscal year was 259, consisting of 185 officers, 73 clerks, and 1 messenger, classed as follows: At Washington, the Supervising Inspector-General, a chief clerk (who is Acting Supervising Inspector-General in the absence of that officer), 6 clerks, and 1 messenger; and the Service at large, consisting of 10 supervising inspectors, 46 local inspectors of hulls, 46 local inspectors of boilers, 40 assistant inspectors of hulls, 42 assistant inspectors of boilers, and 66 clerks to supervising and local inspectors.

During the year 1 local inspector of boilers, 1 assistant inspector of boilers, 1 assistant inspector of hulls, and 3 clerks resigned; 4 local inspectors of hulls, 2 assistant inspectors of boilers, and 4 clerks were removed; 1 local inspector, 12 assistant inspectors, and 5 clerks were transferred to other offices in the Service; 1 supervising inspector, 2 local inspectors of hulls, 2 local inspectors of boilers, 6 assistant inspectors of hulls, 6 assistant inspectors of boilers, and 10 clerks were appointed from without the Service; 1 local inspector of boilers died during the year.

New offices added to the Service and filled by appointment were 1 clerk at Washington, D. C.; 1 local inspector of hulls, 1 local inspector of boilers, and 1 clerk at San Juan, P. R.; 1 local inspector of hulls, 1 local inspector of boilers, and 1 clerk at Honolulu, Hawaii; 1 assistant inspector of hulls at Boston, Mass.; 1 assistant inspector of hulls and 1 assistant inspector of boilers at Milwaukee, Wis., and 1 clerk to the supervising inspector at New York, N. Y.

SUMMARY OF OFFICE WORK.

The following is a partial summary of the work of the office of the Supervising Inspector-General during the fiscal year ended June 30, 1909:

Acknowledgments received of documents mailed	790
Number of excursion permits filed	1,331
Letters prepared for Secretary's signature	340
Permits to use oil as fuel on steamers	48
Temporary permits to use coil boilers	2
Annual reports of lifeboat and life-raft equipment of vessels of over 100 tons	46
Semimonthly reports of vessels visited by supervising inspectors	240
Miscellaneous accounts examined and approved	845
Index (card system) correspondence (new numbers)	4,718
Estimated number of letters received, answered, and filed	16,000
Personal-expense accounts examined and approved	1,827
Weekly reports of inspectors examined and approved	2,704
Quarterly statements of customs officers and inspectors examined, checked, and recorded	766
Reports of casualties and violations of the law recorded and filed	1,482
Statements of public property charged to Service received, examined, and checked	112
Reports of tests of material at mills and affidavits of boiler makers received, recorded, and filed	1,125
Reports examined of life-preservers inspected at factory	223

While there has been a decrease in certain lines of the work, in most respects the volume of work has largely increased, owing to the growth of the Service, more thorough inspections, and a larger number of details heretofore left entirely to the supervising and local inspectors, that now have to be looked after in the office at Washington.

EXPENDITURES.

Following is a detailed account of the expenditures for the fiscal year ended June 30, 1909:

Salaries, Supervising Inspector-General, supervising and local inspectors, assistant inspectors, and clerks to local boards, authorized by acts of Congress approved April 4, 1888, March 3, 1905, April 9, 1906, and May 28, 1908 (appointments authorized by sections 4402, 4404, and 4414, Revised Statutes)	$428,140.91
Salaries, clerks and messenger in the office of the Supervising Inspector-General, at Washington, D. C	10,440.00
Total	438,580.91
Traveling expenses (actual and mileage)	65,709.38
Rents, offices	10,331.73
Stationery, supplies, and transportation of same	4,553.81
Telephone rents, telegrams, and postage	2,738.41
Typewriting machines, repairs, and supplies	1,001.68
Notary fees to certificates of inspection and expense accounts	996.44
Instruments and repairs to instruments	948.25
Witnesses' fees and mileage in cases of investigation	581.65
Furniture and repairs to same	538.32
Ice, fuel, gas, electric lights, and water rents	298.91
Clerk to Board of Supervising Inspectors (annual meeting, 1909)	207.50
Janitor services	121.08
Towels, laundry, soap, etc	71.00
Marine publications and official railway guides	57.00
Moving offices and machinery	55.85
Post-office box rents	16.05

Typewriting	$9.15
Street-car tickets (for use of messenger in Washington)	6.67
Total traveling and miscellaneous expenses	88,242.88
Salaries as noted above	438,580.91
Total expenditures for year ended June 30, 1909	526,823.79
Total expenditures for year ended June 30, 1908	522,182.07
Increase, 1909	4,641.72
Salaries, 1909	438,580.91
Salaries, 1908	422,036.19
Increase, 1909	16,544.72
Contingent expenses, 1909	88,242.88
Contingent expenses, 1908	100,145.88
Decrease, 1909	11,903.00
Rents, 1909	10,331.73
Rents, 1908	15,402.75
Decrease, 1909	5,071.02
Traveling expenses, actual and mileage, 1909	65,709.38
Traveling expenses, actual and mileage, 1908	70,218.98
Decrease, 1909	4,509.60

A comparison of the expenditures during the fiscal years 1908 and 1909 will show that there was a substantial decrease in each of the items, with the exception of salaries, the increase in which, when compared with the total expenditures for salaries, is very small. There was a substantial decrease in 1909 in the contingent expenses, rents, and traveling expenses. The decrease in rents is due primarily to the fact that space in government buildings is being provided for the offices of local and supervising inspectors. The decrease in contingent expenses is due to the fact that requests for authority to purchase are carefully scrutinized by this office before a letter of authority is prepared for the Secretary's signature, and when, in the opinion of this office, it is possible for inspectors to do without certain things which they think they need, their requisitions are not approved. By a careful and systematic auditing of the personal-expense accounts of the inspectors, with a view to preventing unnecessary traveling, and by careful checking of the weekly reports, this office has effected a decrease in expenditures without sacrificing in any way the efficiency of the Service. While the Service is not parsimonious in the matter of furnishing supplies and equipment, it insists more and more that its employees shall give a reasonable explanation for every expenditure that is made.

NUMBER, CLASS, AND TONNAGE OF VESSELS INSPECTED.

There is submitted herewith a tabulated statement showing the number, class, and tonnage of vessels regularly inspected by this Service and granted certificates.

CERTIFICATES OF INSPECTION ISSUED TO STEAM, SAIL, AND MOTOR VESSELS, AND TO BARGES, DURING THE FISCAL YEAR ENDED JUNE 30, 1909, BY DISTRICTS.

Supervising district.	Local district.	Foreign steamers.		Domestic steamers.		Motor vessels.		Passenger sail vessels and barges.		Seagoing barges.		Total.	
		No.	*Gross tonnage.*	*No.*	*Gross tonnage.*	*No.*	*Gross tonnage.*	*No.*	*Gross tonnage.*	*No.*	*Gross tonnage.*	*No.*	*Gross tonnage.*
First district	San Francisco, Cal	13	79,300	353	379,853	39	4,375	5	4,661			410	468,189
	Portland, Oreg			163	33,304	11	555					174	33,859
	Seattle, Wash	29	169,536	311	165,169	10	410			11	15,355	361	350,470
	Juneau, Alaska			80	3,805	1	25					81	3,830
	St. Michael, Alaska			46	19,051	3	88	1	146			50	19,285
	Honolulu, Hawaii	3	33,049	25	10,091	2	283					30	43,423
Second district	New York, N. Y	209	1,886,239	1,213	715,949	21	738	11	4,392	169	144,080	1,623	2,751,398
	Albany, N. Y			192	44,528			2	523			194	45,051
	Boston, Mass	29	229,169	250	107,008	2	57			48	49,257	329	385,491
	Providence, R. I			169	107,036	4	101			32	29,564	205	136,701
	New London, Conn			85	19,965	6	225			6	6,733	97	26,923
	New Haven, Conn			108	15,310	15	751			1	1,213	124	17,274
	Philadelphia, Pa	18	125,352	293	163,761	13	929			101	95,729	425	385,771
	Portland, Me	6	34,025	101	27,203	1	35			8	2,381	116	63,644
	Bangor, Me	2	491	66	6,635	3	2,141			6	6,557	77	15,824
Third district	Norfolk, Va	2	7,847	220	59,191	11	317	1	494	38	37,392	272	105,241
	Baltimore, Md	10	67,748	276	117,084	22	1,226			11	10,196	319	196,254
	Charleston, S. C			97	7,177	6	155			2	360	105	7,692
	Savannah, Ga			69	53,051	1	30					70	53,081
	Jacksonville, Fla			59	8,375	4	140					63	8,515
Fourth district	St. Louis, Mo			83	17,371	14	336					97	17,707
Fifth district	Dubuque, Iowa			64	7,208	8	356					72	7,564
	Duluth, Minn			188	336,455	12	718	2	342			202	337,515
Sixth district	Louisville, Ky			46	7,568	7	255					53	7,823
	Evansville, Ind			59	9,605	3	106	2	802			64	10,513
	Nashville, Tenn			79	10,600	1	19	1	196			81	10,815
	Memphis, Tenn			65	9,566	1	27					66	9,593
Seventh district	Cincinnati, Ohio			62	13,035	1	25					63	13,060
	Point Pleasant, W. Va			70	9,022	1	32					71	9,054
	Pittsburg, Pa			132	23,262			1	115			133	23,377
Eighth district	Detroit, Mich			136	199,939							136	199,939
	Chicago, Ill			183	189,429	6	129					189	189,558
	Grand Haven, Mich			161	51,127	3	67					164	51,194
	Marquette, Mich	5	1,828	71	15,854			1	148			77	17,830
	Milwaukee, Wis			240	271,346	3	185					243	271,531
	Port Huron, Mich	2	5,290	106	64,885	1	45					109	70,220
Ninth district	Cleveland, Ohio			209	481,959							209	481,959
	Buffalo, N. Y	15	28,315	286	432,409	1	41					302	460,765
	Burlington, Vt	1	607	34	4,012							35	4,619
	Oswego, N. Y	16	6,548	105	30,630	1	201	1	203			123	37,582

Tenth district	Toledo, Ohio	4	4,828	78	61,632	2	36	......	....	......	....	79	66,496
	New Orleans, La	32	132,551	261	46,918	41	1,318	7	5,267	1	1,148	342	187,202
	Apalachicola, Fla	......	....	62	7,724	14	705	......	....	......	....	76	8,429
	Galveston, Tex	12	55,965	65	13,000	21	590	1	838	8	9,448	107	79,841
	Mobile, Ala	6	9,898	128	10,981	10	339	......	....	6	2,827	150	22,995
	San Juan, P. R	5	12,817	8	706	......	....	......	....	......	....	13	13,525
	Total, 1909	419	2,890,903	7,152	4,389,741	326	18,111	36	18,127	448	411,740	8,381	7,728,622
	Total, 1908	452	2,916,272	7,403	4,392,373	291	15,844	44	20,506	......	....	8,190	7,344,995
	Increase (+) or decrease (−).	−33	−25,369	−251	−2,632	+35	+2,267	−8	−2,379	+448	+411,740	+191	+383,627

Vessels Inspected and Officers Licensed during the Fiscal Year ended June 30, 1909, by Geographical Divisions.

Geographical division.	Vessels inspected.												Officers licensed.			
	Foreign steamers.		Domestic steamers.		Motor vessels.		Passenger sail vessels and barges.		Seagoing barges.		Total.		Steam vessels.	Motor vessels.	Sail vessels and barges.	Total.
	No.	*Gross tonnage.*	*No.*	*Gross tonnage.*	*No.*	*Gross tonnage.*	*No.*	*Gross tonnage.*	*No.*	*Gross tonnage.*	*No.*	*Gross tonnage.*				
Pacific coast	45	281,885	978	611,273	66	5,736	6	4,807	11	15,355	1,106	919,056	1,502	955	94	2,551
Atlantic coast	276	2,350,871	3,198	1,452,273	109	6,845	14	5,409	422	383,462	4,019	4,196,860	3,827	3,305	162	7,294
Western rivers	......	....	706	108,962	48	1,874	6	1,455	......	....	760	112,291	889	550	1	1,440
Northern lakes	43	47,416	1,746	2,137,952	17	704	2	351	......	....	1,808	2,186,423	1,477	967	1	2,445
Gulf coast	55	210,731	524	79,281	86	2,952	8	6,105	15	12,923	688	311,992	759	526	8	1,293
Total, 1909	419	2,890,903	7,152	4,389,741	326	18,111	36	18,127	448	411,740	8,381	7,728,622	8,454	6,303	266	15,023
Total, 1908	452	2,916,272	7,403	4,392,373	291	15,844	44	20,506	......	....	8,190	7,344,995	18,316	7,553	187	26,056
Increase (+) or decrease (−)	−33	−25,369	−251	−2,632	+35	+2,267	−8	−2,379	+448	+411,740	+191	+383,627	−9,862	−1,250	+79	−11,033

Seagoing barges were inspected for the first time, under act of Congress approved May 28, 1908, effective January 1, 1909.

MARINE BOILER PLATES TESTED.

During the year ended June 30, 1909, 3,059 marine boiler plates were tested at the mills by assistant inspectors of this Service, under act of Congress approved January 22, 1894. Of this number, 2,774 were accepted and 285 rejected, as follows:

Inspected by Assistant Inspector—	Plates rejected because of—										Total.		
	Spoiled at shears after inspection.	Lost in shipping house.	Tensile strength.	Elongation.	Lamination.	Light gauge.	Heavy gauge.	Reduced area.	Bad surface.	Bending test.	Rejected.	Accepted.	Inspected.
E. G. Allen, Coatesville, Pa	4	....	12	9	4	....	4	1	10	2	46	1,622	1,668
D. J. Dougherty, Pittsburg, Pa	....	....	....	....	....	....	3	18	....	....	21	127	148
J. B. Hayward, Pittsburg, Pa	2	....	53	23	12	4	....	14	21	46	175	492	667
S. H. Hunter, Cleveland, Ohio	....	....	....	....	....	....	....	....	....	....	....	32	32
W. Nicholas, Chicago, Ill	....	....	23	....	1	2	2	....	13	2	43	501	544
Total, 1909	6	....	88	32	17	6	9	33	44	50	285	2,774	3,059
Total, 1908	5	5	244	46	3	6	27	59	41	131	567	3,124	3,691
Increase (+) or decrease (−).	+1	−5	−156	−14	+14	....	−18	−26	+3	−81	−282	−350	−632

In addition to these plates there were inspected at the mills a large number of steel bars for braces and stay bolts in marine boilers, and also several hundred plates for stock and repairs.

There were many requests from other branches and departments of the Government for tests of material at the mills, which tests were completed and reports rendered to the proper officials.

NEW LIFE-PRESERVERS INSPECTED.

During the fiscal year ended June 30, 1909, inspectors of this Service inspected new life-preservers as follows:

Kind.	Inspected.	Rejected.	Passed.
Block cork	148,637	758	147,879
Consolidated cork	532	....	532
Tule	6,445	....	6,445
Compressed cork	992	12	980
Cork life jackets	1,006	....	1,006
Balsa wood (A. B. C.)	3,594	....	3,594
Total	161,206	770	160,436

The above statement of the number of new life-preservers examined shows a decrease from the previous year of 22,594. Of the number examined, 770 were rejected, a decrease from the previous year of 1,376.

OFFICERS LICENSED.

There were 15,023 officers of all grades licensed during the fiscal year ended June 30, 1909. The number licensed for each grade, by local districts, is shown in the following table:

Local district.	Masters of steam vessels.	Mates of ocean steamers.	Mates of river steamers.	First-class pilots.	Second-class and special pilots.	Chief engineers.	Assistant engineers.	Special engineers.	Joint pilots and engineers.	Operators of motor vessels.	Engineers of motor vessels other than steam.	Masters of sail vessels of over 700 gross tons.	Mates of sail vessels of over 700 gross tons.	Mates of vessels of over 100 gross tons.	Total of all grades.
San Francisco, Cal.	206	154	7	26	18	171	212	2	1	279	75	41	13	....	1,205
Juneau, Alaska...	6	1	4	....	7	4	9	....	....	35	3	....	1	....	70
Honolulu, Hawaii	4	8	....	....	2	8	9	....	....	12	4	1	1	....	49
Portland, Oreg...	35	1	16	4	28	37	42	3	1	174	13	1	....	....	355
Seattle, Wash....	134	89	....	1	40	70	94	3	6	311	36	21	15	....	820
St. Michael, Alaska	10	2	11	2	4	6	4	....	....	10	3	....	....	....	52
New York, N. Y.	546	79	44	196	42	486	263	2	1	679	54	27	2	8	2,429
Albany, N. Y....	18	....	6	6	21	31	47	3	7	23	....	....	....	2	164
Bangor, Me.......	13	4	....	5	11	10	16	1	....	206	10	3	....	....	279
Boston, Mass.....	92	35	1	41	40	85	106	14	4	353	41	42	5	....	859
New Haven, Conn	9	1	2	13	20	13	6	....	....	85	27	3	....	....	179
New London, Conn...........	24	....	4	12	17	14	9	3	2	151	14	1	1	....	252
Philadelphia, Pa.	97	15	11	22	21	65	67	3	2	415	18	9	1	....	746
Portland, Me.....	29	6	....	13	11	41	24	1	....	173	8	11	....	....	317
Providence, R. I..	22	4	5	12	25	44	27	4	1	112	32	6	1	....	295
Norfolk, Va.......	84	7	....	21	30	47	44	6	2	160	16	14	....	....	431
Baltimore, Md....	74	29	3	54	45	79	48	2	....	228	56	16	....	1	635
Charleston, S. C..	19	4	....	13	20	19	21	1	8	85	18	1	....	....	209
Jacksonville, Fla.	10	....	3	3	14	9	21	6	....	267	25	2	....	....	360
Savannah, Ga....	33	2	4	8	9	10	18	....	....	42	7	5	1	....	139
St. Louis, Mo.....	29	....	23	40	....	38	25	8	1	100	9	....	....	....	273
Dubuque, Iowa...	17	....	4	7	13	14	18	3	5	87	23	....	....	1	192
Duluth, Minn....	16	....	....	23	13	13	8	3	2	46	1	....	....	....	125
Louisville, Ky....	13	....	24	7	10	18	13	1	....	37	4	....	....	....	127
Evansville, Ind...	13	....	12	5	13	9	10	....	....	46	5	....	....	....	113
Memphis, Tenn...	14	....	15	8	9	19	12	....	....	104	2	....	....	....	183
Nashville, Tenn..	14	....	17	11	7	15	9	4	....	52	1	....	....	....	130
Cincinnati, Ohio..	17	....	41	8	....	6	10	....	2	4	1	....	....	....	89
Pittsburg, Pa.....	25	....	49	11	7	28	24	8	....	40	....	....	....	....	192
Point Pleasant W. Va.........	17	....	49	10	1	15	14	....	....	35	....	....	....	....	141
Detroit, Mich.....	35	....	....	24	10	61	32	3	1	45	3	....	....	....	214
Chicago, Ill.......	47	....	1	45	24	48	51	2	3	49	12	....	....	....	282
Grand Haven, Mich...........	10	....	....	10	27	24	41	2	7	262	8	....	....	....	391
Marquette, Mich.	10	....	....	8	7	8	12	2	....	49	....	....	....	....	96
Milwaukee, Wis..	18	....	....	23	18	30	39	2	5	136	5	....	....	....	276
Port Huron, Mich	52	....	....	59	11	48	35	4	....	46	1	....	....	....	256
Cleveland, Ohio..	28	....	....	33	6	42	25	2	....	40	2	....	....	....	178
Buffalo, N. Y.....	35	....	....	20	35	65	50	3	....	32	2	....	....	1	243
Burlington, Vt...	2	....	....	3	13	3	9	2	....	45	....	....	....	....	77
Oswego, N. Y....	22	....	....	12	11	11	11	1	....	144	2	....	....	....	214
Toledo, Ohio.....	14	....	....	5	9	10	18	....	....	33	4	....	....	....	93
New Orleans, La.	76	7	29	45	82	64	72	8	3	84	51	....	....	1	522
Apalachicola, Fla.	27	4	3	14	18	12	16	....	....	113	16	1	....	....	224
Galveston, Tex...	23	10	1	6	28	12	19	5	5	128	25	2	....	....	264
Mobile, Ala.......	28	3	4	16	31	34	36	....	....	73	22	4	....	....	251
San Juan, P. R...	4	2	....	....	4	4	3	1	....	10	4	....	....	....	32
Total, 1909..	2,071	467	393	905	832	1,900	1,699	118	69	5,640	663	211	41	14	15,023
Total, 1908........	4,950	564	264	1,685	1,720	5,511	3,271	224	127	6,941	612	145	33	9	26,056
Increase (+) or decrease (−)...	−2,879	−97	+129	−780	−888	−3,611	−1,572	−106	−58	−1,301	+51	+66	+8	+5	+11,033

EXAMINATIONS FOR COLOR BLINDNESS.

During the year ended June 30, 1909, 1,362 applicants were examined for color blindness, of which number 36 were found color-blind and rejected and 1,326 were passed. As compared with the previous fiscal year, these figures show an increase of 519 in the number of applicants examined and 535 in the number of applicants passed.

ACCIDENTS AND LIVES LOST.

The total number of accidents resulting in loss of life during the fiscal year ended June 30, 1909, was 74, with a total life loss of 278. Classified according to causes, the accidents and deaths are shown in the following table:

Cause.	Accidents.	Lives lost.	Cause.	Accidents.	Lives lost.
Fire	2	3	Snags, wrecks, and sinking	9	68
Collision	25	37	Accidental drowning		81
Explosions or accidental escape of steam	6	9	Miscellaneous	28	73
Breaking of steam pipes, mud drums, etc	4	7	Total	[a] 74	[b] 278

[a] Increase of 10 over previous year.

[b] Decrease of 107 from previous year.

By supervising inspection districts and by causes, the loss of life was as follows:

Supervising district.	Fire.	Collision.	Explosions or accidental escape of steam.	Breaking of steam pipes, mud drums, etc.	Snags, wrecks, or sinking.	Accidental drowning.	Miscellaneous.	Total.
First		3	1			16	12	32
Second		19		3	9	10	22	63
Third	3	2			5	5	8	23
Fourth						2		2
Fifth						4	1	5
Sixth		5	2		1	11	4	23
Seventh						8	2	10
Eighth				4	43	8	2	57
Ninth		7	3		8	6	6	30
Tenth		1	3		2	11	16	33
Total	3	37	9	7	68	81	73	278

It is pleasing to note that the foregoing statement shows a substantial decrease in the loss of life as compared with the previous fiscal year. The loss of life was due largely to the following disasters:

About 11 o'clock a. m., November 21, 1908, while proceeding up the Mississippi River, the boilers of the steamer *H. M. Carter* exploded. The wreck took fire and the vessel was totally lost, 11 persons losing their lives. In the investigation of this casualty, the local inspectors were unable to ascertain the cause of the explosion, because of their inability to obtain evidence as to the condition of the boilers, which were entirely submerged.

On November 21, 1908, a collision occurred between a loaded mud scow, being towed astern of steamer *Minot I. Wilcox*, and schooner

Hugh G. This accident occurred near Graves Light, Boston Harbor. The schooner sunk quickly, and the scow turned over. Five of the crew of the schooner and 1 man of the scow were drowned, making a total of 6 lives lost in this collision.

At 1.40 a. m., December 3, 1908, during a heavy gale, barge *No. 101*, in tow of tug *John A. Hughes*, suddenly sunk off Seal Island, Nova Scotia, resulting in the drowning of 7 men.

The most serious disaster of the year occurred on or about November 30, 1908, in the vicinity of Whitefish Point, Lake Superior, when the steamer *D. M. Clemson* foundered from an unknown cause, resulting in the drowning of 24 persons. Navigation on the Great Lakes is particularly hazardous in the late fall, and the *Clemson* foundered during one of the severe storms that usually rage at that time.

Inspectors in the Ninth district reported the sinking of the fishing steamer *Geo. A. Floss*, William Barry, master, which occurred, it is believed, between April 8 and 10, 1909, on Lake Erie, off Cleveland, Ohio. An unusually heavy gale was blowing at the time, during which the steamer foundered and her entire crew of 7 men were lost.

On April 25, 1909, at or about 4.30 a. m., at a point 41 miles below New Orleans, La., the tug *Eagle* capsized, resulting in the loss of 8 lives. From an investigation of this casualty by the United States local inspectors at New Orleans, La., it appears that the tug was proceeding up the Mississippi River, and without warning she took a heavy list and capsized. Her master was an experienced steamboat pilot of undoubted capacity to handle a vessel under such conditions, but there was small chance to meet the emergency that came upon him so suddenly. The local inspectors are of the opinion that the chains on the port side connecting the tug with the barge which she was pushing parted, throwing all of the strain on the starboard side, causing the tug to list, and, being caught in the current at the same time, turn over.

On May 1 or 2, 1909, while en route from Ludington, Mich., to Duluth, Minn., and when off Grand Island, Lake Superior, the steamer *Adella Shores*, heavily laden with a cargo of salt, foundered during a terrific gale, resulting in the loss of her entire crew of 14 men.

Of the total number of 278 lives lost, 81 were from accidents for which the Service can not in any way be held responsible, and 73 from suicide and other causes beyond the power of the Service to avert; which leaves 124 that can fairly be chargeable to accident, collision, or foundering.

PASSENGERS CARRIED.

During the calendar year 1908, 413,531,305 passengers were carried on vessels that are required by law to report the number of passengers carried, an increase of 41,184,026. Taking the total loss of life as 278, it is seen that 1,487,522 passengers were carried for each life lost, whether of passengers or crew, and from all causes.

MOTOR VESSELS.

The number of motor vessels steadily increases, and it becomes more and more apparent that the jurisdiction of this Service must be extended in the direction of their supervision. While many persons operate motor vessels with considerable skill and care, it is nevertheless apparent that a large number of them make very poor students of the rules of navigation. Some of these by their carelessness endanger not only their own lives, but also the lives of persons traveling upon steam vessels, and in strenuous endeavors to avoid collision with them the licensed officers of steam vessels are sometimes forced to endanger the safety of their vessels.

INSPECTION OF VESSELS.

This Service exists primarily for the purpose of inspecting vessels of the American merchant marine, and to this end its efforts are persistently directed. The vessels subject to the inspection laws receive a regular annual inspection, and passenger vessels are periodically reinspected with a view to ascertaining whether they are maintaining the required equipment and are keeping up the efficiency of boat and fire drills. The result is that though the American merchant marine is smaller than the merchant fleets of other principal maritime countries it is second to none so far as concerns quality, personnel of the men who man the ships, and excellence of its fire-fighting and life-saving equipment.

LICENSING OF OFFICERS.

The second purpose for which this Service exists is the licensing of men to act as masters, mates, pilots, and engineers of vessels of the American merchant marine. In this respect this Service is most exacting as to the standard of persons who are applicants for marine licenses. Licensees must be in all cases native born or naturalized citizens of this country, and they must pass the rigid physical and mental examinations required by the rules of this Service. It would be hard to overestimate the importance of these licensed officers, for from them, in time of a naval conflict, would be recruited the men to navigate vessels of the merchant marine pressed into service for war purposes, and perhaps also to serve the military establishment.

BOARD OF SUPERVISING INSPECTORS.

During the year the Board of Supervising Inspectors held its regular annual meeting, at which necessary amendments were made to the rules and regulations and new rules formulated, and those which have received the approval of the Department are in effect. The executive committee of the Board of Supervising Inspectors met once during the year and passed upon matters requiring its attention.

NEW BOARDS OF LOCAL INSPECTORS.

During the past fiscal year boards of local inspectors were created at Honolulu, Hawaii, and San Juan, P. R., with the result that the steamboat-inspection laws are now readily enforced at these ports.

CONDITION OF THE SERVICE.

During the fiscal year 1910 it is proposed to establish in the central office index systems which will make readily accessible information relative to vessels and the licensing of officers which, heretofore, has required writing to the districts or searching the records in this office to procure, thereby consuming much time.

This Service is excellently organized, and the central office makes every effort to keep thoroughly informed of operations throughout the supervising and local districts. It does this through the supervising inspectors, who are held strictly to account for the conduct and acts of the boards of local inspectors.

REPORTS OF SUPERVISING INSPECTORS.

There are attached hereto, for your information and the information of Congress the reports of the supervising inspectors of the various districts for the calendar year ended December 31, 1908; also a detailed list of foreign passenger steamers inspected during the fiscal year ended June 30, 1909.

Respectfully,

Geo. Uhler,
Supervising Inspector-General.

To Hon. Charles Nagel,
Secretary of Commerce and Labor.

Note.—Lists of domestic vessels inspected during the year ended December 31, 1908, and of foreign steam vessels inspected during the fiscal year ended June 30, 1909, appear in the Annual Report of the Supervising Inspector-General, but have been omitted from this compilation.

The list of inspections of domestic vessels shows, by supervising and local districts, the class, name, and gross tonnage of each vessel inspected, when hull was built and rebuilt, when boilers were built and rebuilt, where vessel was built, date and place of inspection, and date and local district of previous inspection.

The list of foreign steam vessels inspected shows, by headquarters of local inspectors, the name, gross tonnage, nationality, and date of inspection of each vessel.

APPENDIX.

GENERAL STATISTICS.

Statement Embracing the Various Matters and Occurrences Relating to upon by the Several Boards of Local and Supervising

	First district.						
	San Francisco, Cal.	Portland, Oreg.	Seattle, Wash.	Juneau, Alaska.	St. Michael, Alaska.	Honolulu, Hawaii.	Total.
Granted certificates of inspection:							
Domestic steam vessels	363	154	292	76	52	22	959
Domestic vessels propelled by gas, fluid, naphtha, or electric motors	39	10	9	2	4	1	65
Domestic sail vessels, barges, etc	7		4		1		12
Foreign steam vessels	20		36			1	57
Total	429	164	341	78	57	24	1,093
Refused certificates of inspection:							
Domestic steam vessels	1			1			2
Domestic vessels propelled by gas, fluid, naphtha, or electric motors							
Total	1			1			2
Gross tonnage of vessels inspected:							
Domestic steam vessels	394,023	32,022	147,677	3,928	25,413	8,484	611,547
Domestic vessels propelled by gas, fluid, naphtha, or electric motors	3,988	454	351	55	299	211	5,358
Domestic sail vessels, barges, etc	5,751		1,219		146		7,116
Foreign steam vessels	112,921		235,088			6,176	354,185
Total	516,683	32,476	384,335	3,983	25,858	14,871	978,206
New vessels added to service	29	19	21	3	2		74
Vessels gone out of service	4	8	3	3			18
Gross tonnage of new vessels added to service	13,295	3,691	8,459	40	482		25,967
Gross tonnage of vessels gone out of service	3,640	1,646	2,878	18			8,182
Boilers inspected:							
Steel (riveted plates)	826	145	420	62	110	44	1,607
Iron (riveted plates)	28	5	18	1			52
Pipe	70	14	123	15	3	1	226
Total	924	164	561	78	113	45	1,885
Boilers found defective:							
Gave way under hydrostatic pressure—							
Steel (riveted plates)	8		8				16
Iron (riveted plates)							
Pipe			1	2			3
Defective from other causes—							
Steel (riveted plates)	152		42	3			197
Iron (riveted plates)							
Pipe	19		1				20
Total found defective	179		52	5			236

APPENDIX.

GENERAL STATISTICS.

Vessels Navigated under the Acts of Congress that have been Acted Inspectors for the Year ended December 31, 1908.

Second district.									
New York, N. Y.	Boston, Mass.	Philadelphia, Pa.	New London, Conn.	Albany, N. Y.	Portland, Me.	Providence, R. I.	Bangor, Me.	New Haven, Conn.	Total.
1,229	255	308	84	194	98	161	81	109	2,519
20	2	11	6	....	1	4	3	15	62
13	....	....	....	2	....	....	....	....	15
205	30	20	....	2	7	....	2	....	266
1,467	287	339	90	198	106	165	86	124	2,862
....	1	....	....	3	....	....	....	....	4
....	....	....	1	....	....	....	....	....	1
....	1	....	1	3	....	....	....	....	5
722,421	111,265	170,953	26,974	43,906	21,540	82,909	7,128	15,677	1,202,773
732	57	689	215	....	35	94	2,141	751	4,714
5,514	....	....	....	515	....	....	....	....	6,029
1,751,949	228,704	133,732	....	3,660	57,606	....	491	....	2,176,142
2.480,616	340,026	305,374	27,189	48,081	79,181	83,003	9,760	16,428	3,389,658
17	7	15	3	4	1	4	2	8	61
8	3	4	....	3	1	....	3	3	25
3,551	10,847	20,539	548	137	75	82	32	868	36,679
5,674	579	143	....	180	96	....	55	311	7,038
2,831	333	443	88	194	127	206	56	90	4,368
199	27	66	5	47	7	6	....	10	367
262	58	51	31	12	21	49	32	21	537
3,292	418	560	124	253	155	261	88	121	5,272
17	7	2	....	....	....	4	....	1	31
3	....	....	....	....	....	....	....	2	5
....	2	....	....	....	1	....	....	....	3
130	44	69	2	28	6	1	....	7	287
30	6	25	....	7	1	....	....	1	70
8	4	11	....	1	....	1	....	....	25
188	63	107	2	36	8	6	....	11	421

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO
UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING

	First district.						
	San Francisco, Cal.	Portland, Oreg.	Seattle, Wash.	Juneau, Alaska.	St. Michael, Alaska.	Honolulu, Hawaii.	Total.
Boilers condemned from further use:							
Steel (riveted plates)				1			1
Pipe							
Total				1			1
Defects in boilers and attachments:							
Sheets	12		3	1			16
Heads	4		5				9
Steam and mud drums	3		1				4
Flues and tubes	94		5	2			101
Steam pipes	2						2
Stay bolts	84		24			20	128
Braces	6		5				11
Other parts	99		13				112
Total	304		56	3		20	383
Tests of samples of steel and iron plates to be used in marine boilers other than material tested at the mills by assistant inspectors:							
Samples of steel tested	6						6
Samples of defective steel rejected							
Tests of sample steel bars to be used as stays and braces:							
Samples tested							
Tests of samples of line-carrying guns:							
Samples tested							
Samples rejected							
Received original license:							
Masters of steam and motor vessels	4	3	16				23
Masters and pilots of steam and motor vessels	8	15	29				52
Mates of steam vessels	81	5	50	2	12		150
Mates and pilots of steam vessels	2		21		2		25
Pilots of steam and motor vessels	24	20	10		3	2	59
Joint pilots and engineers of steam vessels		1	8	1	1		11
Engineers of steam vessels	55	36	94	3	2	2	192
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	42	5	31		4	1	83
Operators of motor vessels of 15 gross tons or less carrying passengers for hire	428	202	375	35	17	6	1,063
Masters of sail vessels of over 700 gross tons	8		7				15
Chief mates of sail vessels of over 700 gross tons	7		3				10
Masters of vessels of over 100 gross tons carrying passengers for hire, other than steam, motor, and sail vessels							
Total	659	287	644	41	41	11	1,683
Received renewal of license:							
Masters of steam and motor vessels	35	12	22	3	5		77
Masters and pilots of steam and motor vessels	182	24	85	4	10		305
Mates of steam vessels	86	9	18		8		121
Mates and pilots of steam vessels	2		4	3			9

VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

Second district.									
New York, N. Y.	Boston, Mass.	Philadelphia, Pa.	New London, Conn.	Albany, N. Y.	Portland, Me.	Providence, R. I.	Bangor, Me.	New Haven, Conn.	Total.
	3			3					6
	2								2
	5			3					8
136	25	43		49			1	1	255
2	2	6					1		11
	2			1					3
569	97	13	1	377	1		2	7	1,067
	2	2		1			1	1	7
882	68	27	1	793	67			5	1,843
121	4	8		34		8		2	177
33	23	46						17	119
1,743	223	145	2	1,255	68	8	5	33	3,482
4	1								5
2									2
90	6	36							132
88	6								94
27	3								30
9	9					1			19
4	48	1				2		7	62
60	13	20	4	3	1	4	7	1	113
5	7	1			2				15
122	35	19	5	7	7	8	13	11	227
	4			1		1			6
245	104	31	6	24	18	13	7	3	451
35	37	11	10		5	16	7	10	131
868	287	441	157	23	171	112	192	95	2,346
4	15		2					1	22
2			1						3
1									1
1,355	559	524	185	58	204	157	226	128	3,396
54	12	5	1	1	3	1	1		78
508	55	108	32	21	18	19	16	10	787
43	5	5	2		1	1			57
8	4	5	1		1	2			21

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING

	First district.						
	San Francisco, Cal.	Portland, Oreg.	Seattle, Wash.	Juneau, Alaska.	St. Michael, Alaska.	Honolulu, Hawaii.	Total.
Received renewal of license—Con.							
Pilots of steam and motor vessels	21	14	38	5	3		81
Joint pilots and engineers of steam vessels	1		1	2			4
Engineers of steam vessels	393	72	103	9	14	2	593
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	30	6	5	2	2		45
Masters of sail vessels of over 700 gross tons	41		21				62
Chief mates of sail vessels of over 700 gross tons	6		9	1			16
Masters of vessels of over 100 gross tons carrying passengers for hire, other than steam, motor, and sail vessels							
Total	797	137	306	29	42	2	1,313
Licenses suspended or revoked:							
Masters of steam and motor vessels		1	3				4
Masters and pilots of steam and motor vessels	16	1	9				26
Mates of steam vessels	3	1	2				6
Mates and pilots of steam vessels			2				2
Pilots of steam and motor vessels	2		1				3
Engineers of steam vessels	5	1	3	1	2		12
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire			1				1
Operators of motor vessels of 15 gross tons or less carrying passengers for hire	5	1	4				10
Masters of sail vessels of over 700 gross tons							
Total	31	5	25	1	2		64
Refused license:							
Masters of steam and motor vessels			2	1	1		4
Masters and pilots of steam and motor vessels	2		7				9
Mates of steam vessels	10	2	3		2		17
Mates and pilots of steam vessels			1				1
Pilots of steam and motor vessels	5	1	1	2	1		10
Joint pilots and engineers of steam vessels			1				1
Engineers of steam vessels	3	2	10	3	1		19
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	1		1				2
Operators of motor vessels of 15 gross tons or less carrying passengers for hire							
Masters of sail vessels of over 700 gross tons	3						3
Chief mates of sail vessels of over 700 gross tons	1						1
Total	25	5	26	6	5		67
Violations of the law:							
Cases investigated by local boards	30	6	26	3			65

VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

Second district.									
New York, N. Y.	Boston, Mass.	Philadelphia, Pa.	New London, Conn.	Albany, N. Y.	Portland, Me.	Providence, R. I.	Bangor, Me.	New Haven, Conn.	Total.
144	46	32	26	23	17	30	17	19	354
1	1	2	5	1	......	1	......	......	11
649	130	120	37	68	45	66	25	21	1,161
12	8	6	3	......	1	2	1	15	48
9	11	6	......	......	4	......	2	1	33
1	3	1	......	......	......	......	......	......	5
2	......	......	......	1	......	......	......	......	3
1,431	275	290	107	115	90	122	62	66	2,558
......	......	......	......	......	......	......	......	......	......
13	1	5	4	1	1	1	......	......	26
......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......
6	2	3	1	1	......	......	......	......	13
10	3	8	......	......	......	......	......	......	21
......	......	......	......	......	......	......	......	......	......
8	......	3	1	......	......	1	......	......	13
......	1	......	......	......	......	......	......	......	1
37	7	19	6	2	1	2	......	......	74
5	1	......	......	......	......	......	......	......	6
......	......	......	......	......	......	......	......	......	......
5	1	1	......	......	......	......	......	......	7
......	......	......	......	......	......	......	......	......	......
1	......	1	......	......	......	......	1	......	3
......	......	......	......	......	......	......	......	......	......
5	2	5	1	1	1	......	......	......	15
......	1	2	1	......	......	......	2	......	6
14	9	5	1	......	2	......	......	3	34
......	......	......	......	......	......	......	......	......	......
......	1	......	......	......	......	......	......	......	1
30	15	14	3	1	3	......	3	3	72
64	15	39	8	3	1	5	......	11	146

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING

	First district.						
	San Francisco, Cal.	Portland, Oreg.	Seattle, Wash.	Juneau, Alaska.	St. Michael, Alaska.	Honolulu, Hawaii.	Total.
Violations of the law—Cont'd.							
Cases dismissed by local boards	11		2	1			14
Licenses suspended by local boards	23	3	17	1			44
Licenses revoked by local boards	9	1	8		2		20
Cases reported to district attorneys and chief officers of customs by local boards	2				1		3
Number of appeals to supervising inspector from decisions of local boards	4	1	3		1		9
Decisions of local boards revoked by supervising inspector			1				1
Decisions of local boards modified by supervising inspector	1						1
Decisions of local boards sustained by supervising inspector	3		2				5
Number of appeals to Supervising Inspector-General from decisions of supervising inspector	1						1
Decisions of supervising inspector revoked by Supervising Inspector-General	1						1
Vessels wrecked or foundered:							
Steam vessels	2	1	1	1	1		6
Motor vessels		1					1
Sail vessels	2			1			3
Barges, etc							
Total	4	2	1	2	1		10
Accidents to steam and other vessels:							
By collision between vessels	30	2	9				41
By fire	5		5	1			11
By sinking from any cause	1	2					3
By grounding, temporarily or otherwise	16	1	7	3			27
Damaged by snags, ice, collisions with wharves and bridges, or other cause	7	1	3				11
By explosion or accidental escape of steam	1						1
To machinery	16	2	1			1	20
Miscellaneous	6	1	1				8
Total	82	9	26	4		1	122
Accidents causing loss of life by explosion or accidental escape of steam							
Lives lost:							
By explosion or accidental escape of steam							
By wreck or founder	2	11		111			124
By collision between vessels			2				2
By fire	2						2
By accidental drowning	13	2	4		1		20
From miscellaneous causes	10	2					12
Total	27	15	6	111	1		160
Passengers lost:							
By collision between vessels							
By accidental drowning	2	1	1				4
From miscellaneous causes	7	2					9
Total	9	3	1				13

VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

Second district.									
New York, N. Y.	Boston, Mass.	Philadelphia, Pa.	New London, Conn.	Albany, N. Y.	Portland, Me.	Providence, R. I.	Bangor, Me.	New Haven, Conn.	Total.
35	9	14	3	1	....	2	....	8	72
23	5	14	6	1	1	2	....	....	52
14	2	5	....	1	....	1	....	....	23
8	1	3	1	....	1	....	....	3	17
15	1	6	....	2	....	....	....	....	24
5	1	....	....	1	....	....	....	....	7
8	....	2	....	....	....	....	....	....	10
2	....	4	....	1	....	....	....	....	7
....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....
1	1	....	1	....	....	1	....	....	4
1	....	....	....	....	....	1	....	1	3
....	....	....	1	....	....	....	....	....	1
1	1	2	2	....	....	2	....	7	15
3	2	2	4	....	....	4	....	8	23
161	8	28	3	4	2	4	1	9	220
23	4	7	1	5	2	1	....	1	44
7	....	6	....	....	1	1	....	2	17
13	3	3	10	2	2	....	1	4	38
7	1	5	1	....	3	1	3	1	22
9	1	....	1	....	....	....	1	....	12
1	2	4	....	1	2	5	....	1	16
6	1	1	....	....	....	....	....	....	8
227	20	54	16	12	12	12	6	18	377
2	....	....	....	....	....	....	....	....	2
2	....	....	....	....	....	....	1	....	3
....	7	6	....	....	....	....	....	....	13
9	6	2	....	....	....	....	....	....	17
....	....	....	....	4	....	....	....	....	4
6	2	3	3	....	....	1	....	....	15
6	1	3	1	....	....	2	....	....	13
23	16	14	4	4	....	3	1	....	65
4	....	....	....	....	....	....	....	....	4
....	....	....	2	....	....	....	....	....	2
3	....	3	1	....	....	1	....	....	8
7	....	3	3	....	....	1	....	....	14

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING

	First district.						
	San Francisco, Cal.	Portland, Oreg.	Seattle, Wash.	Juneau, Alaska.	St. Michael, Alaska.	Honolulu, Hawaii.	Total.
Lives saved by means of life-saving appliances required by law	150	....	....	....	....	....	150
Passengers carried by steamers	39,253,133	2,494,552	3,826,561	76,640	44,000	59,522	45,754,408
Amount of property lost:							
By explosion or accidental escape of steam	....	....	....	....	....	....	....
By wreck or founder	$347,000	$40,125	$178,000	$1,000	$2,500	....	$568,625
By collision between vessels	$44,500	$12,140	$11,270	....	....	....	$67,910
By fire	$9,250	....	$5,000	$100	....	....	$14,350
By snags	$125	....	$27,000	....	....	....	$27,125
From miscellaneous causes	$69,450	$7,800	$17,700	$136,150	....	....	$231,100
Total	$470,325	$60,065	$238,970	$137,250	$2,500	....	$909,110

VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED
INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

Second district.									
New York, N. Y.	Boston, Mass.	Philadelphia, Pa.	New London Conn.	Albany, N. Y.	Portland, Me.	Providence, R. I.	Bangor, Me.	New Haven, Conn.	Total.
17	....	....	....	....	....	....	....	....	17
262,469,005	22,170,984	30,647,873	939,854	4,396,726	2,647,204	2,185,612	795,102	322,680	326,575,040
$200	....	....	....	....	....	....	....	....	$200
....	$30,000	$25,000	$31,600	....	....	$3,400	....	$10,800	$100,800
$358,460	....	$28,616	....	$1,500	$300	$1,160	....	$4,852	$394,888
$65,300	$10,750	$30,800	$800	$249,950	$9,000	$3,000	....	$2,010	$371,610
$3,000	....	$4,206	....	....	....	$100	....	....	$7,306
$253,400	....	$38,003	$150	....	$40,260	$3,650	$1,700	$950	$338,113
$680,360	$40,750	$126,625	$32,550	$251,450	$49,560	$11,310	$1,700	$18,612	$1,212,917

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO
UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING

	Third district.					
	Norfolk, Va.	Baltimore, Md.	Charleston, S. C.	Savannah, Ga.	Jacksonville, Fla.	Total.
Granted certificates of inspection:						
Domestic steam vessels	234	278	100	73	59	744
Domestic vessels propelled by gas, fluid, naphtha, or electric motors	9	18	4	2	5	38
Domestic sail vessels, barges, etc	2					2
Foreign steam vessels		7				7
Total	245	303	104	75	64	791
Refused certificates of inspection:						
Domestic steam vessels				1		1
Domestic vessels propelled by gas, fluid, naphtha, or electric motors						
Total				1		1
Gross tonnage of vessels inspected:						
Domestic steam vessels	77,491	114,951	7,412	54,375	8,813	263,042
Domestic vessels propelled by gas, fluid, naphtha, or electric motors	218	1,079	94	54	186	1,631
Domestic sail vessels, barges, etc	620					620
Foreign steam vessels		47,732				47,732
Total	78,329	163,762	7,506	54,429	8,999	313,025
New vessels added to service	10	14	7	6	3	40
Vessels gone out of service		3	13	1	6	23
Gross tonnage of new vessels added to service	13,660	1,699	301	490	83	16,233
Gross tonnage of vessels gone out of service		75	1,226	19	156	1,476
Boilers inspected:						
Steel (riveted plates)	243	468	96	105	56	968
Iron (riveted plates)	18	33	3	6	5	65
Pipe	18	17	7	12	9	63
Total	279	518	106	123	70	1,096
Boilers found defective:						
Gave way under hydrostatic pressure—						
Steel (riveted plates)	3	7	3	4	3	20
Iron (riveted plates)		4				4
Pipe		3				3
Defective from other causes—						
Steel (riveted plates)	23	166	2		7	198
Iron (riveted plates)		7			4	11
Pipe		2				2
Total	26	189	5	4	14	238
Boilers condemned from further use:						
Steel (riveted plates)		10			2	12
Defects in boilers and attachments:						
Sheets	67	213	2	1	4	287
Heads	6	81		1	2	90
Steam and mud drums	2	4	1			7
Flues and tubes	1,863	4,006	751	1	547	7,168
Steam pipes	4	14	1		1	20
Stay bolts	998	2,175		76	14	3,263
Braces	16	132				148
Other parts	18	96				114
Total	2,974	6,721	755	79	568	11,097
Tests of samples of steel and iron plates to be used in marine boilers other than material tested at the mills by assistant inspectors:						
Samples of steel tested		6				6
Tests of sample steel bars to be used as stays and braces:						
Samples tested		9				9

VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

Fourth district.	Fifth district.			Sixth district.				
St. Louis, Mo.	Dubuque, Iowa.	Duluth, Minn.	Total.	Louisville, Ky.	Evansville, Ind.	Nashville, Tenn.	Memphis, Tenn.	Total.
96	65	173	238	43	62	84	70	259
15	10	9	19	7	3	1	1	12
	2	2	4		1	2		3
111	77	184	261	50	66	87	71	274
23	2	1	3	2			1	3
5					1			1
28	2	1	3	2	1		1	4
18,567	7,059	288,083	295,142	5,996	9,955	12,450	8,586	36,987
360	437	462	899	255	106	19	27	407
	366	342	708		447	328		775
18,927	7,862	288,887	296,749	6,251	10,508	12,797	8,613	38,169
8	4	4	8	3	1	5	3	12
4	5	3	8	2	5	3	12	22
250	912	9,706	10,618	172	86	292	82	632
899	1,092	127	1,219	84	324	1,134	873	2,415
206	94	174	268	97	130	173	130	530
1	1	9	10			1	4	5
2	6	51	57					
209	101	234	335	97	130	174	134	535
2		3	3			1		1
33	8	14	22	21	26	30	41	118
		1	1			1		1
	1		1					
35	9	18	27	21	26	32	41	120
2				2	2	2	3	9
20	4	12	16	9	19	45	24	97
3				2	5	13	9	29
5	2		2	6	7	9	9	31
348	5	6	11	98	121	71	245	535
3	3	1	4		12	3	1	16
3	1	148	149		25	1	20	46
		4	4		9		8	17
1	10	3	13	9	16	4	11	40
383	25	174	199	124	214	146	327	811

Statement Embracing the Various Matters and Occurrences Relating to upon by the Several Boards of Local and Supervising

	Third district.					
	Norfolk, Va.	Baltimore, Md.	Charleston, S. C.	Savannah, Ga.	Jacksonville, Fla.	Total.
Received original license:						
Masters of steam and motor vessels	1	4	1			6
Masters and pilots of steam and motor vessels		23		6		29
Mates of steam vessels	6	11	1	4	3	25
Mates and pilots of steam vessels		6				6
Pilots of steam and motor vessels	25	64	9	12	8	118
Joint pilots and engineers of steam vessels	2		3	1		6
Engineers of steam vessels	23	64	11	14	7	119
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	9	32	12	9	23	85
Operators of motor vessels of 15 gross tons or less carrying passengers for hire	179	172	234	55	214	854
Masters of sail vessels of over 700 gross tons	1			2		3
Masters of vessels of over 100 gross tons carrying passengers for hire, other than steam, motor, and sail vessels						
Total	246	376	271	103	255	1,251
Received renewal of license:						
Masters of steam and motor vessels	2	4	2	3		11
Masters and pilots of steam and motor vessels	62	51	26	21	15	175
Mates of steam vessels	2		1		2	5
Mates and pilots of steam vessels	1	5	1	2		9
Pilots of steam and motor vessels	46	41	26	12	16	141
Joint pilots and engineers of steam vessels	2		6			8
Engineers of steam vessels	85	73	43	24	49	274
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	3	5			9	17
Masters of sail vessels of over 700 gross tons	3	3			1	7
Chief mates of sail vessels of over 700 gross tons		1				1
Total	206	183	105	62	92	648
Licenses suspended or revoked:						
Masters of steam and motor vessels						
Masters and pilots of steam and motor vessels	1	5	1			7
Mates of steam vessels						
Pilots of steam and motor vessels	2	3		1		6
Engineers of steam vessels	4			1		5
Operators of motor vessels of 15 gross tons or less carrying passengers for hire	1		1			2
Total	8	8	2	2		20
Refused licenses:						
Masters of steam and motor vessels						
Masters and pilots of steam and motor vessels						
Mates of steam vessels	2	3				5
Pilots of steam and motor vessels		5				5
Engineers of steam vessels	2		1			3
Engineers of motor vessels of over 15 grosst ons carrying freight or passengers for hire		1	1			2
Operators of motor vessels of 15 gross tons or less carrying passengers for hire						
Total	4	9	2			15

VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

Fourth district.	Fifth district.			Sixth district.				
St. Louis, Mo.	Dubuque, Iowa.	Duluth, Minn.	Total.	Louisville, Ky.	Evansville, Ind.	Nashville, Tenn.	Memphis, Tenn.	Total.
					1	1	1	3
3	1	10	11	1		1	1	3
2	4		4	1	2	3	3	9
1					1			1
12	17	18	35	9	3	8	4	24
	3	1	4			1		1
10	21	16	37	13	2	14	5	34
11	14	1	15	6	2	1		9
115	119	34	153	40	59	61	119	279
	1		1				1	1
154	180	80	260	70	70	90	134	364
10	6		6	6	4	6	3	19
21	13	12	25	9	11	9	12	41
24	5		5	11	6	16	10	43
2								
35	13	24	37	12	11	15	18	56
2	3	3	6					
77	52	29	81	27	24	22	22	95
7	10	1	11		2		2	4
178	102	69	171	65	58	68	67	258
1								
3	2	1	3	3	4			7
2							1	1
4	1		1	2	4	2	2	10
2	1		1		2	4	3	9
	1		1					
12	5	1	6	5	10	6	6	27
2					1		1	2
		1	1					
10	1		1	1	2		1	4
2	2	3	5	2	4	2	2	10
2	2		2	6	2	2	1	11
							1	1
2	1		1	3	5	4	10	22
18	6	4	10	12	14	8	16	50

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO
UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING

	Third district.					
	Norfolk, Va.	Baltimore, Md.	Charleston, S. C.	Savannah, Ga.	Jacksonville, Fla.	Total.
Violations of the law:						
Cases investigated by local boards	14	13	1	2	2	32
Cases dismissed by local boards	8	4	....	....	2	14
Licenses suspended by local boards	4	7	2	2	....	15
Licenses revoked by local boards	4	1	....	....	....	5
Cases reported to district attorneys and chief officers of customs by local boards	3	1	....	....	....	4
Number of appeals to supervising inspector from decisions of local boards	1	3	....	....	....	4
Decisions of local boards modified by supervising inspector	....	2	....	....	....	2
Decisions of local boards sustained by supervising inspector	14	11	....	2	4	31
Number of appeals to Supervising Inspector-General from decisions of supervising inspector	1	....	....	....	....	1
Decisions of supervising inspector sustained by Supervising Inspector-General	1	....	....	....	....	1
Vessels wrecked or foundered:						
Steam vessels	2	....	2	....	....	4
Motor vessels	....	....	....	....	....	....
Barges, etc	1	....	....	....	....	1
Total	3	....	2	....	....	5
Accidents to steam and other vessels:						
By collision between vessels	17	19	....	....	....	36
By fire	5	4	2	1	....	12
By sinking from any cause	1	2	1	2	....	6
By grounding, temporarily or otherwise	....	1	....	1	....	2
Damaged by snags, ice, collisions with wharves and bridges, or other cause	....	4	....	....	....	4
By explosion or accidental escape of steam	1	....	....	....	....	1
To machinery	....	....	....	1	....	1
Miscellaneous	....	....	....	....	....	....
Total	24	30	3	5	....	62
Lives lost:						
By wreck or founder	5	....	1	....	....	6
By collision between vessels	....	....	....	....	....	....
By accidental drowning	2	3	....	1	....	6
From miscellaneous causes	2	....	....	....	....	2
Total	9	3	1	1	....	14
Passengers lost:						
By wreck or founder	....	....	....	....	....	....
By collision between vessels	....	2	....	....	....	2
By accidental drowning	....	3	....	....	....	3
From miscellaneous causes	....	1	....	....	....	1
Total	....	6	....	....	....	6
Lives saved by means of life-saving appliances required by law	6	3	....	....	....	9
Passengers carried by steamers	5,586,131	3,021,368	640,685	275,979	1,529,391	11,053,554
Amount of property lost:						
By explosion or accidental escape of steam	....	....	....	....	....	....
By wreck or founder	$900	$1,000	$30,000	....	....	$31,900
By collision between vessels	$51,545	$15,529	....	....	$25	$67,099
By fire	$1,900	$13,560	$35,000	$3,000	....	$53,460
By snags	....	$35	....	$5,000	$2,500	$7,535
From miscellaneous causes	$1,000	$1,675	$2,000	....	$50	$4,725
Total	$55,345	$31,799	$67,000	$8,000	$2,575	$164,719

VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

Fourth district.	Fifth district.			Sixth district.				
St. Louis, Mo.	Dubuque, Iowa.	Duluth, Minn.	Total.	Louisville, Ky.	Evansville, Ind.	Nashville, Tenn.	Memphis, Tenn.	Total.
20	1	4	5	4	5	1	7	17
1	....	2	2	....	3	1	5	9
7	2	1	3	5	8	6	2	21
5	3	....	3	....	2	....	4	6
7	6	6	12	7	2	....	1	10
2	....	2	2	....	....	....	....	....
....	....	....	....	....	....	....	....	....
2	....	2	2	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
1	....	....	....	1	....	....	3	4
....	....	1	1	....	....	....	....	....
....	....	....	....	1	....	....	....	1
1	....	1	1	2	....	....	3	5
1	....	4	4	1	1	....	2	4
2	1	2	3	....	2	....	4	6
1	1	1	2	1	1	....	6	8
....	....	2	2	1	....	....	....	1
1	1	2	3	2	1	....	2	5
....	....	....	....	....	....	1	....	1
....	4	....	4	1	....	....	4	5
....	....	....	....	....	....	....	1	1
5	7	11	18	6	5	1	19	31
....	....	....	....	....	....	....	12	12
....	....	....	....	....	1	....	....	1
2	1	1	2	1	5	3	8	17
....	....	3	3	....	....	....	....	....
2	1	4	5	1	6	3	20	30
....	....	....	....	....	....	....	10	10
2	....	1	1	....	....	....	2	2
....	....	1	1	....	....	....	....	....
2	....	2	2	....	....	....	12	12
2,647,085	1,072,087	1,373,915	2,446,002	788,784	332,597	246,249	441,388	1,809,018
....	....	....	....	....	....	$500	....	$500
....	....	$2,000	$2,000	$1,700	....	....	$21,500	$23,200
$100	....	$44,780	$44,780	....	....	....	$550	$550
$4,000	$1,500	$8,000	$9,500	....	$10,000	....	$4,400	$14,400
$85,000	....	....	....	....	$500	....	$1,800	$2,300
....	$485	$8,700	$9,185	$1,600	....	....	$6,394	$7,994
$89,100	$1,985	$63,480	$65,465	$3,300	$10,500	$500	$34,644	$48,944

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO
UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING

	Seventh district.			
	Cincinnati, Ohio.	Pittsburg, Pa.	Point Pleasant, W. Va.	Total.
Granted certificates of inspection:				
Domestic steam vessels	63	134	65	262
Domestic vessels propelled by gas, fluid, naphtha, or electric motors	1		1	2
Domestic sail vessels, barges, etc		1		1
Foreign steam vessels				
Total	64	135	66	265
Refused certificates of inspection:				
Domestic steam vessels	2	2	3	7
Gross tonnage of vessels inspected:				
Domestic steam vessels	12,892	24,787	8,084	45,763
Domestic vessels propelled by gas, fluid, naphtha, or electric motors	25		32	57
Domestic sail vessels, barges, etc		115		115
Foreign steam vessels				
Total	12,917	24,902	8,116	45,935
New vessels added to service	4	2	3	9
Vessels gone out of service	2	3	2	7
Gross tonnage of new vessels added to service	264	205	327	796
Gross tonnage of vessels gone out of service	784	427	268	1,479
Boilers inspected:				
Steel (riveted plates)	149	416	154	719
Iron (riveted plates)	1	2		3
Pipe	3	17	1	21
Total	153	435	155	743
Boilers found defective:				
Gave way under hydrostatic pressure—				
Steel (riveted plates)				
Iron (riveted plates)				
Pipe				
Defective from other causes—				
Steel (riveted plates)	39	85	32	156
Iron (riveted plates)	1			1
Pipe				
Total found defective	40	85	32	157
Defects in boilers and attachments:				
Sheets	37	104	14	155
Heads	8	2	5	15
Steam and mud drums	7	17	8	32
Flues and tubes	146	15	20	181
Steam pipes				
Stay bolts	9			9
Braces	11		6	17
Other parts			124	124
Total	218	138	177	533
Tests of sample steel bars to be used as stays and braces: Samples tested		8		8
Received original license:				
Masters of steam and motor vessels	3		2	5
Masters and pilots of steam and motor vessels		1		1
Mates of steam vessels	3	8	2	13
Pilots of steam and motor vessels	3	6	4	13
Joint pilots and engineers of steam vessels	1			1
Engineers of steam vessels	5	7	5	17
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	2		2	4
Operators of motor vessels of 15 gross tons or less carrying passengers for hire	8	55	44	107
Total	25	77	59	161

VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

Eighth district.						
Detroit, Mich.	Chicago, Ill.	Grand Haven, Mich.	Marquette, Mich.	Milwaukee, Wis.	Port Huron, Mich.	Total.
138	218	148	71	248	106	929
	5	3		4	1	13
	1		1			2
			5		2	7
138	224	151	77	252	109	951
		2				2
191,369	281,984	47,656	18,244	272,040	72,472	883,765
	111	58		132	45	346
	438		148			586
			1,597		3,492	5,089
191,369	282,533	47,714	19,989	272,172	76,009	889,786
15	4	12	1	11	7	50
4	6	1	5	3	4	23
67,046	129	255	14	1,469	29,251	98,164
79	997	18	9,655	165	3,078	13,992
205	297	180	84	352	129	1,247
9	10	11	5	12	8	55
16	27	14	3	16	3	79
230	334	205	92	380	140	1,381
16	21	3	2	9	4	55
			1	1		2
	1	1				2
4	20	48	17	17		106
1	2	2	1			6
		2				2
21	44	56	21	27	4	173
5	18	54	22	5	8	112
1	2			1		4
	1		4		1	6
4	24	78	23	4	2	135
3	8	19	10			40
26	76	55	115	5	7	284
3	22	8	19	1		53
17	6	63	16	6		108
59	157	277	209	22	18	742
11				1		12
	2					2
	3		1	1		5
	2					2
14	46	14	9	20	28	131
1	1	7				9
30	29	18	7	28	26	138
2	8	5	1	12		28
53	63	334	43	127	47	667
100	154	378	61	188	101	982

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO
UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING

	Seventh district.			
	Cincinnati, Ohio.	Pittsburg, Pa.	Point Pleasant, W. Va.	Total.
Received renewal of license:				
Masters of steam and motor vessels	11	6	8	25
Masters and pilots of steam and motor vessels	14	40	22	76
Mates of steam vessels	34	50	36	120
Pilots of steam and motor vessels	12	14	12	38
Joint pilots and engineers of steam vessels	1			1
Engineers of steam vessels	36	85	36	157
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	2			2
Total	110	195	114	419
Licenses suspended or revoked:				
Masters and pilots of steam and motor vessels			6	6
Pilots of steam and motor vessels			1	1
Engineers of steam vessels	1		3	4
Operators of motor vessels of 15 gross tons or less carrying passengers for hire				
Total	1		10	11
Refused license:				
Masters of steam and motor vessels		1		1
Masters and pilots of steam and motor vessels				
Mates of steam vessels		6		6
Pilots of steam and motor vessels			5	5
Engineers of steam vessels	2	4	4	10
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire				
Operators of motor vessels of 15 gross tons or less carrying passengers for hire	2		11	13
Total	4	11	20	35
Violations of the law:				
Cases investigated by local boards	2	4	1	7
Cases dismissed by local boards	1	3		4
Licenses suspended by local boards	1		10	11
Licenses revoked by local boards				
Cases reported to district attorneys and chief officers of customs by local boards		1	4	5
Number of appeals to supervising inspector from decisions of local boards			5	5
Decisions of local boards revoked by supervising inspector				
Decisions of local boards modified by supervising inspector			1	1
Decisions of local boards sustained by supervising inspector			4	4
Vessels wrecked or foundered:				
Steam vessels		1	3	4
Motor vessels				
Total		1	3	4
Accidents to steam and other vessels:				
By collision between vessels	1	7		8
By fire	1		2	3
By sinking from any cause	1	5		6
By grounding, temporarily or otherwise				
Damaged by snags, ice, collisions with wharves and bridges, or other cause	1	1		2
By explosion or accidental escape of steam				
To machinery	1		8	9
Miscellaneous				
Total	5	13	10	28
Accidents causing loss of life by explosion or accidental escape of steam				

Vessels Navigated under the Acts of Congress that have been Acted Inspectors for the Year ended December 31, 1908—Continued.

Eighth district.						
Detroit, Mich.	Chicago, Ill.	Grand Haven, Mich.	Marquette, Mich.	Milwaukee, Wis.	Port Huron, Mich.	Total.
....	....	....	....	....	....	....
48	47	15	12	33	60	215
....	....	....	....	....	....	....
25	50	33	19	43	47	217
....	2	2	1	4	....	9
78	82	62	29	81	73	405
....	....	2	....	....	1	3
151	181	114	61	161	181	849
16	1	2	1	....	....	20
....	4	1	5	1	2	13
....	1	....	2	....	....	3
....	2	....	....	....	1	3
16	8	3	8	1	3	39
....	....	....	....	....	....	....
1	2	2	....	6	9	20
....	....	....	....	....	....	....
5	1	2	3	18	8	32
4	2	4	7	7	13	37
....	....	....	1	1	....	2
1	7	2	2	8	2	22
11	12	10	13	35	32	113
20	8	5	11	3	4	51
9	....	3	3	2	2	19
16	7	2	8	....	1	34
....	1	1	....	1	1	4
2	2	1	2	1	1	9
1	1	1	....	2	3	8
....	1	1	....	1	1	4
....	....	....	....	1	....	1
1	....	....	....	....	2	3
....	1	....	3	....	....	4
....	....	....	....	1	....	1
....	1	....	3	1	....	5
16	13	3	11	6	5	54
4	6	4	2	1	3	20
1	5	1	2	....	....	9
7	....	22	20	7	10	66
3	13	1	9	6	1	33
....	....	....	....	1	....	1
6	8	4	9	3	1	31
....	1	....	3	1	....	5
37	46	35	56	25	20	219
....	....	....	....	1	....	1

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO
UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING

	Seventh district.			
	Cincinnati, Ohio.	Pittsburg, Pa.	Point Pleasant, W. Va.	Total.
Lives lost:				
By explosion or accidental escape of steam..	....	....	....	....
By wreck or founder........	....	3	....	3
By collision between vessels........	....	2	....	2
By accidental drowning........	5	2	1	8
From miscellaneous causes........	....	1	2	3
Total........	5	8	3	16
Passengers lost:				
By accidental drowning........	1	2	1	4
From miscellaneous causes........	....	....	1	1
Total........	1	2	2	5
Lives saved by means of life-saving appliances required by law........	....	4	....	4
Passengers carried by steamers........	1,663,274	678,427	901,280	3,242,961
Amount of property lost:				
By explosion or accidental escape of steam..	....	....	....	....
By wreck or founder........	$200	$13,200	$6,200	$19,600
By collision between vessels........	....	$600	....	$600
By fire........	$1,600	....	$7,500	$9,100
By snags........	....	....	....	....
From miscellaneous causes........	$1,000	$6,400	$2,475	$9,875
Total........	$2,800	$20,200	$16,175	$39,175

VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

Eighth district.						
Detroit, Mich.	Chicago, Ill.	Grand Haven, Mich.	Marquette, Mich.	Milwaukee, Wis.	Port Huron, Mich.	Total.
				4		4
	2		24			26
			1			1
1		1		2		4
			3		1	4
1	2	1	28	6	1	39
	1					1
	1					1
	6				52	58
7,588,576	1,880,873	579,777	347,709	288,780	501,579	11,187,294
				$500		$500
	$5,000		$385,000			$390,000
$8,054	$3,550		$33,700	$6,025	$219,000	$270,329
$16,700	$17,200	$5,000	$37,000	$2,000	$48,200	$126,100
			$29,100			$29,100
$13,691	$11,885	$78,109	$223,829	$6,800	$118,250	$452,564
$38,445	$37,635	$83,109	$708,629	$15,325	$385,450	$1,268,593

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO
UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING

	Ninth district.			
	Cleveland, Ohio.	Buffalo, N. Y.	Burlington, Vt.	Oswego, N. Y.
Granted certificates of inspection:				
Domestic steam vessels	204	310	34	106
Domestic vessels propelled by gas, fluid, naphtha, or electric motors		1		1
Domestic sail vessels, barges, etc				1
Foreign steam vessels		15	1	14
Total	204	326	35	122
Refused certificates of inspection:				
Domestic steam vessels				
Domestic sail vessels, barges, etc				
Foreign steam vessels				
Total				
Gross tonnage of vessels inspected:				
Domestic steam vessels	429,462	427,621	4,087	25,932
Domestic vessels propelled by gas, fluid, naphtha, or electric motors		41		17
Domestic sail vessels, barges, etc				203
Foreign steam vessels		24,822	607	5,930
Total	429.462	452,484	4.694	32,062
New vessels added to service	14	15		2
Vessels gone out of service		2		1
Gross tonnage of new vessels added to service	60,824	5,036		472
Gross tonnage of vessels gone out of service		2,000		6
Boilers inspected:				
Steel (riveted plates)	339	515	23	94
Iron (riveted plates)	6	11	3	8
Pipe	15	13	17	41
Total	360	539	43	143
Boilers found defective:				
Gave way under hydrostatic pressure—				
Steel (riveted plates)	45	46		2
Iron (riveted plates)				1
Pipe				1
Defective from other causes—				
Steel (riveted plates)	56			4
Iron (riveted plates)				
Total found defective	101	46		8
Boilers condemned from further use:				
Steel (riveted plates)				4
Pipe				1
Total				5
Defects in boilers and attachments:				
Sheets	34	2		1
Heads	2			1
Steam and mud drums				
Flues and tubes	35	4		2
Steam pipes	11			
Stay bolts	124	254	1	1
Braces	13	2		
Other parts	2			
Total	221	262	1	5
Test of samples of steel and iron plates to be used in marine boilers other than material tested at the mills by assistant inspectors:				
Samples of steel tested	19			
Samples of defective steel rejected	4			
Tests of sample steel bars to be used as stays and braces:				
Samples tested	36	16		1

VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

Ninth district—Continued.		Tenth district.					
Toledo, Ohio.	Total.	New Orleans, La.	Apalachicola, Fla.	Galveston, Tex.	Mobile, Ala.	San Juan, P. R.	Total.
86	740	279	64	64	128	2	537
.....	2	42	14	20	8	.....	84
.....	1	6	.....	.....	.....	.....	6
4	34	33	.....	11	9	2	55
90	777	360	78	95	145	4	682
1	1	5	1	.....	1	.....	7
.....	.....	1	.....	.....	.....	.....	1
.....	.....	1	.....	.....	.....	.....	1
1	1	7	1	.....	1	.....	9
71,455	958,557	54,804	9,901	5,862	10,199	51	80,817
.....	58	1,317	598	586	295	.....	2,796
.....	203	4,551	.....	.....	.....	.....	4,551
3,907	35,266	134,592	.....	44,589	15,063	5,815	200,059
75,362	994,084	195,264	10,499	51,037	25,557	5,866	288,223
4	35	21	9	3	11	.....	44
1	4	11	3	2	8	.....	24
12,456	78,788	1,001	587	63	7,331	.....	8,982
85	2,091	470	417	19	440	.....	1,346
109	1,080	483	67	78	149	2	779
7	35	8	5	1	7	.....	21
5	91	13	6	4	7	.....	30
121	1,206	504	78	83	163	2	830
4	97	.....	.....	.....	1	.....	1
.....	1	.....	.....	.....	1	.....	1
.....	1	.....	.....	.....	.....	.....	.....
1	61	31	5	1	28	.....	65
.....	.....	1	.....	.....	.....	.....	1
5	160	32	5	1	30	.....	68
.....	4	5	.....	.....	3	.....	8
.....	1	.....	.....	.....	.....	.....	.....
.....	5	5	.....	.....	3	.....	8
.....	37	27	3	2	11	.....	43
.....	3	1	1	1	6	.....	9
.....	.....	18	.....	1	.....	.....	19
.....	41	174	2	.....	365	.....	541
.....	11	2	.....	.....	2	.....	4
7	387	120	.....	7	272	.....	399
.....	15	34	.....	.....	.....	.....	34
.....	2	69	1	.....	65	.....	135
7	496	445	7	11	721	.....	1,184
.....	19	41	.....	.....	.....	.....	41
.....	4	2	.....	.....	.....	.....	2
4	57	.....	.....	.....	.....	.....	.....

Statement Embracing the Various Matters and Occurrences Relating to upon by the Several Boards of Local and Supervising

	Ninth district.			
	Cleveland, Ohio.	Buffalo, N. Y.	Burlington, Vt.	Oswego, N. Y.
Received original license:				
Masters of steam and motor vessels	....	....	....	....
Masters and pilots of steam and motor vessels	....	15	1	....
Mates of steam vessels	....	....	....	....
Mates and pilots of steam vessels	....	....	....	....
Pilots of steam and motor vessels	32	22	5	11
Joint pilots and engineers of steam vessels	....	1	....	....
Engineers of steam vessels	28	64	1	13
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	1	1	....	2
Operators of motor vessels of 15 gross tons or less carrying passengers for hire	45	147	29	177
Masters of sail vessels of over 700 gross tons	....	....	....	....
Masters of vessels of over 100 gross tons carrying passengers for hire, other than steam, motor, and sail vessels	....	1	....	....
Total	106	251	36	203
Received renewal of license:				
Masters of steam and motor vessels	....	....	....	....
Masters and pilots of steam and motor vessels	40	24	....	17
Mates of steam vessels	....	....	....	....
Mates and pilots of steam vessels	....	....	....	....
Pilots of steam and motor vessels	22	43	12	36
Joint pilots and engineers of steam vessels	....	2	....	....
Engineers of steam vessels	88	102	14	23
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	....	....	....	....
Chief mates of sail vessels of over 700 gross tons	....	....	....	....
Total	150	171	26	76
Licenses suspended or revoked:				
Masters and pilots of steam and motor vessels	3	3	....	1
Pilots of steam and motor vessels	....	....	....	....
Engineers of steam vessels	....	1	....	....
Operators of motor vessels of 15 gross tons or less carrying passengers for hire	....	....	....	1
Total	3	4	....	2
Refused license:				
Masters and pilots of steam and motor vessels	1	....	....	1
Mates of steam vessels	....	....	....	....
Pilots of steam and motor vessels	6	4	....	1
Engineers of steam vessels	8	13	....	3
Operators of motor vessels of 15 gross tons or less carrying passengers for hire	....	2	....	1
Total	15	19	....	6
Violations of the law:				
Cases investigated by local boards	5	5	....	2
Cases dismissed by local boards	....	2	....	....
Licenses suspended by local boards	3	4	....	2
Licenses revoked by local boards	....	....	....	....
Cases reported to district attorneys and chief officers of customs by local boards	....	1	....	....
Number of appeals to supervising inspector from decisions of local boards	....	1	....	1
Decisions of local boards modified by supervising inspector	....	....	....	....
Decisions of local boards sustained by supervising inspector	....	....	....	1
Vessels wrecked or foundered: Steam vessels	....	....	....	....

VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

Ninth district—Continued.		Tenth district.					
Toledo, Ohio.	Total.	New Orleans, La.	Apalachicola, Fla.	Galveston, Tex.	Mobile, Ala.	San Juan, P. R.	Total.
....	....	1	....	....	3	....	4
....	16	1	....	2	5	....	8
....	....	8	4	....	6	....	18
....	....	....	....	1	....	....	1
5	75	53	17	15	27	1	113
....	1	1	....	2	....	....	3
14	120	33	7	18	28	1	87
1	5	51	36	18	13	1	119
57	455	94	119	121	78	6	418
....	....	....	....	....	2	....	2
....	1	3	....	....	....	....	3
77	673	245	183	177	162	9	776
....	....	21	1	1	10	....	33
11	92	75	28	21	18	1	143
....	....	38	2	1	2	....	43
....	....	1	1	2	....	....	4
19	132	90	16	37	21	....	164
....	2	5	....	1	3	....	9
27	254	148	32	37	60	....	277
....	....	....	2	3	5	....	10
....	....	1	....	....	....	....	1
57	480	379	82	103	119	1	684
1	8	3	....	1	1	....	5
1	1	2	....	1	....	1	4
1	2	3	....	1	....	1	5
....	1	....	....	....	....	....	....
3	12	8	....	3	1	2	14
....	2	....	....	....	....	....	....
....	....	....	1	....	....	....	1
1	12	....	....	3	....	....	3
1	25	8	2	5	....	....	15
....	3	1	....	3	1	....	5
2	42	9	3	11	1	....	24
4	16	12	....	6	3	3	24
2	4	2	....	3	2	1	8
2	11	8	....	3	1	1	13
1	1	....	....	....	....	1	1
1	2	8	....	....	....	2	10
1	3	....	1	....	1	1	3
....	....	....	....	....	....	1	1
1	2	....	1	....	1	1	3
....	....	....	....	2	....	....	2

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO
UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING

	Ninth district.			
	Cleveland, Ohio.	Buffalo, N. Y.	Burlington, Vt.	Oswego, N. Y.
Accidents to steam and other vessels:				
By collision between vessels	6	6		1
By fire	1	8		
By sinking from any cause	3	2		1
By grounding, temporarily or otherwise		2		2
Damaged by snags, ice, collisions with wharves and bridges, or other cause	9	7		1
By explosion or accidental escape of steam				
To machinery	1	1		5
Miscellaneous				1
Total	20	26		11
Lives lost:				
By explosion or accidental escape of steam				
By collision between vessels				
By snags				
By accidental drowning	2	3		
From miscellaneous causes	1	1		
Total	3	4		
Passengers lost:				
By accidental drowning				
From miscellaneous causes				
Total				
Lives saved by means of life-saving appliances required by law		2		
Passengers carried by steamers	275,539	1,536,502	195,172	315,164
Amount of property lost:				
By explosion or accidental escape of steam				
By collision between vessels	$21,250	$12,500		$50
By fire		$64,050		
By snags				
From miscellaneous causes	$24,000	$21,200		$4,681
Total	$45,250	$97,750		$4,731

Vessels Navigated under the Acts of Congress that have been Acted Inspectors for the Year ended December 31, 1908—Continued.

Ninth district—Continued.		Tenth district.					
Toledo, Ohio.	Total.	New Orleans, La.	Apalachicola, Fla.	Galveston, Tex.	Mobile, Ala.	San Juan, P. R.	Total.
3	16	2	2	3	3	....	10
2	11	10	1	1	2	....	14
....	6	9	....	2	....	....	11
5	9	4	1	....	....	1	6
2	19	1	....	2	....	1	4
....	....	1	1	....	....	....	2
....	7	1	....	2	....	....	3
9	10	2	....	....	....	....	2
21	78	30	5	10	5	2	52
....	....	11	....	....	....	....	11
1	1	....	....	....	3	....	3
....	....	1	....	....	....	....	1
....	5	7	1	4	4	....	16
1	3	1	....	....	....	....	1
2	9	20	1	4	7	....	32
2	2	....	....	....	1	....	1
2	2	2	....	....	....	....	2
4	4	2	....	....	1	....	3
5	7	....	....	....	....	....	....
1,003,887	3,326,264	5,026,896	151,596	94,667	157,178	59,322	5,489,659
....	....	$15,000	....	....	....	....	$15,000
$6,000	$39,800	....	$57	$3,500	....	....	$3,557
$14,000	$78,050	$25,200	$30,000	$2,500	$2,000	....	$59,700
....	....	$3,000	....	$1,000	....	....	$4,000
$60,373	$110,254	$9,000	....	....	....	$300	$9,300
$80,373	$228,104	$52,200	$30,057	$7,000	$2,000	$300	$91,557

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

RECAPITULATION.

		Total in 1908.	Total in 1907.	Increase (+) or decrease (−).
VESSELS.				
Granted certificates of inspection:				
Domestic steam vessels	7,283			
Domestic vessels propelled by gas, fluid, naphtha, or electric motors	312			
Domestic sail vessels, barges, etc	46			
Foreign steam vessels	426			
		8,067	8,299	− 232
Refused certificates of inspection:				
Domestic steam vessels	53			
Domestic vessels propelled by gas, fluid, naphtha, or electric motors	7			
Domestic sail vessels, barges, etc	1			
Foreign steam vessels	1			
		62	30	+ 32
Gross tonnage of vessels inspected:				
Domestic steam vessels	4,396,960			
Domestic vessels propelled by gas, fluid, naphtha, or electric motors	16,626			
Domestic sail vessels, barges, etc	20,703			
Foreign steam vessels	2,818,473			
		7,252,762	7,094,593	+158,169
New vessels added to service		341	386	− 45
Vessels gone out of service		158	211	− 53
Gross tonnage of new vessels added to service		277,109	458,651	−181,542
Gross tonnage of vessels gone out of service		40,137	73,935	− 33,798
BOILERS.				
Boilers inspected:				
Steel (riveted plates)	11,772			
Iron (riveted plates)	614			
Pipe	1,106			
		13,492	13,710	− 218
Boilers found defective:				
Gave way under hydrostatic pressure—				
Steel (riveted plates)	226			
Iron (riveted plates)	13			
Pipe	12			
		251	260	− 9
Defective from other causes—				
Steel (riveted plates)	1,243			
Iron (riveted plates)	91			
Pipe	50			
		1,384	1,143	+ 241
Boilers condemned from further use:				
Steel (riveted plates)	42			
Pipe	3			
		45	73	− 28
Defects in boilers and attachments:				
Sheets	1,038			
Heads	173			
Steam and mud drums	109			
Flues and tubes	10,128			
Steam pipes	107			
Stay bolts	6,511			
Braces	476			
Other parts	768			
		19,310	15,586	+ 3,724
Tests of samples of steel and iron plates to be used in marine boilers, other than material tested at the mills by assistant inspectors:				
Samples of steel tested		77	120	− 43
Samples of defective steel rejected		8	12	− 4
Tests of sample steel bars to be used as stays and braces: Samples tested		218	1,065	− 837
LINE-CARRYING GUNS.				
Tests of samples of line-carrying guns:				
Samples tested		94	66	+ 28
Samples rejected		30	11	+ 19

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

RECAPITULATION—Continued.

		Total in 1908.	Total in 1907.	Increase (+) or decrease (−).
OFFICERS.				
Received original license:				
Masters of steam and motor vessels	62			
Masters and pilots of steam and motor vessels	190			
Mates of steam vessels	336			
Mates and pilots of steam vessels	49			
Pilots of steam and motor vessels	807			
Joint pilots and engineers of steam vessels	42			
Engineers of steam vessels	1,205			
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	490			
Operators of motor vessels of 15 gross tons or less carrying passengers for hire	6,457			
Masters of sail vessels of over 700 gross tons	42			
Chief mates of sail vessels of over 700 gross tons	13			
Masters of vessels of over 100 gross tons carrying passengers for hire, other than steam, motor, and sail vessels	7			
		9,700	9,950	− 250
Received renewal of license:				
Masters of steam and motor vessels	259			
Masters and pilots of steam and motor vessels	1,880			
Mates of steam vessels	418			
Mates and pilots of steam vessels	45			
Pilots of steam and motor vessels	1,255			
Joint pilots and engineers of steam vessels	52			
Engineers of steam vessels	3,374			
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	147			
Masters of sail vessels of over 700 gross tons	102			
Chief mates of sail vessels of over 700 gross tons	23			
Masters of vessels of over 100 gross tons carrying passengers for hire, other than steam, motor, and sail vessels	3			
		7,558	24,505	−16,947
Licenses suspended or revoked:				
Masters of steam and motor vessels	5			
Masters and pilots of steam and motor vessels	111			
Mates of steam vessels	9			
Mates and pilots of steam vessels	2			
Pilots of steam and motor vessels	56			
Engineers of steam vessels	64			
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	1			
Operators of motor vessels of 15 gross tons or less carrying passengers for hire	30			
Masters of sail vessels of over 700 gross tons	1			
		279	310	− 31
Refused license:				
Masters of steam and motor vessels	15			
Masters and pilots of steam and motor vessels	32			
Mates of steam vessels	51			
Mate and pilot of steam vessels	1			
Pilots of steam and motor vessels	87			
Joint pilots and engineers of steam vessels	1			
Engineers of steam vessels	139			
Engineers of motor vessels of over 15 gross tons carrying freight or passengers for hire	13			
Operators of motor vessels of 15 gross tons or less carrying passengers for hire	102			
Masters of sail vessels of over 700 gross tons	3			
Chief mates of sail vessels of over 700 gross tons	2			
		446	412	+ 34
Violations of the law:				
Cases investigated by local boards		383	489	− 106
Cases dismissed by local boards		147	205	− 58
Licenses suspended by local boards		211	283	− 72
Licenses revoked by local boards		68	33	+ 35
Cases reported to district attorneys and chief officers of customs by local boards		79	145	− 66
Number of appeals to supervising inspector from decisions of local boards		60	55	+ 5
Decisions of local boards revoked by supervising inspector		12	17	− 5
Decisions of local boards modified by supervising inspector		16	16	

STATEMENT EMBRACING THE VARIOUS MATTERS AND OCCURRENCES RELATING TO VESSELS NAVIGATED UNDER THE ACTS OF CONGRESS THAT HAVE BEEN ACTED UPON BY THE SEVERAL BOARDS OF LOCAL AND SUPERVISING INSPECTORS FOR THE YEAR ENDED DECEMBER 31, 1908—Continued.

RECAPITULATION—Continued.

		Total in 1908.	Total in 1907.	Increase (+) or decrease (−).
OFFICERS—continued.				
Violations of the law—Continued.				
Decisions of local boards sustained by supervising inspector		59	67	− 8
Number of appeals to Supervising Inspector-General from decisions of supervising inspector		2	2	
Decisions of supervising inspector revoked by Supervising Inspector-General		1		+ 1
Decisions of supervising inspector sustained by Supervising Inspector-General		1	2	− 1
CASUALTIES—LOSS OF LIFE.				
Vessels wrecked or foundered:				
Steam vessels	29			
Motor vessels	6			
Sail vessels	4			
Barges, etc	17			
		56	106	− 50
Accidents to steam and other vessels:				
By collision between vessels	394			
By fire	126			
By sinking, from any cause	69			
By grounding, temporarily or otherwise	151			
Damaged by snags, ice, collisions with wharves and bridges, or other causes	104			
By explosion or accidental escape of steam	18			
To machinery	96			
Miscellaneous	34			
		992	1,020	− 28
Accidents causing loss of life by explosion or accidental escape of steam		3	11	− 8
Lives lost:				
By explosion or accidental escape of steam	18			
By wreck or founder	181			
By collision between vessels	27			
By fire	6			
By snags	1			
By accidental drowning	95			
From miscellaneous causes	41			
		372	538	− 166
Passengers lost:				
By wreck or founder	10			
By collision between vessels	6			
By accidental drowning	21			
From miscellaneous causes	25			
		62	226	− 164
Lives saved by means of life-saving appliances required by law		245	521	− 276
PASSENGERS CARRIED.				
Passengers carried by steamers		413,531,305	372,347,279	+41,184,026
LOSS OF PROPERTY.				
Amount of property lost:				
By explosion or accidental escape of steam	$16,200			
By wreck or founder	1,136,125			
By collision between vessels	889,613			
By fire	740,270			
By snags	162,366			
From miscellaneous causes	1,173,110			
		$4,117,684	$8,540,948	−$4,423,264

SUMMARY OF CASUALTIES, VIOLATIONS OF LAW, AND INVESTIGATIONS FOR THE YEAR ENDED DECEMBER 31, 1908.

FIRST SUPERVISING DISTRICT.

LOCAL DISTRICT OF SAN FRANCISCO, CAL.

1907.

August 16.—In a heavy gale July 31, 1907, in latitude 33° and 40′ S. and longitude 84° and 40′ W., the ship *Tillie E. Starbuck*, 2,025 gross tons, carried away her fore-topmast and main and mizzen masts. Jury stays and sails were rigged on the foremast, which gave the ship steerageway. Water was kept in control by pumps. On August 16 distress signals were answered by the British ship *Cambus Kenneth*, which took off the ship's crew. At the same time it was decided to abandon the disabled ship, which was set on fire.

November 21.—Charles McLagan, first assistant engineer of condensing bay and river steamers, charged with violation of section 24, Rule V, of the rules and regulations. Case investigated by the supervising inspector. Charges sustained and license of Mr. McLagan was revoked April 28, 1908.

1908.

January 2.—Steamer *Transit* collided with steamer *Rival* in the Bay of San Francisco. Case investigated, and the officers in charge of both steamers were exonerated. No damage to steamers.

January 6.—Steamer *Solano*, in a dense fog and strong ebb tide, with fog signals sounding, struck scow *Annie L.* lightly, in Carquines Straits, California. Damage slight.

January 8.—Ferry steamer *Piedmont* collided with steamer *Car Float No. 2* in a dense fog on the Bay of San Francisco. Both steamers had their engines reversed before they came together. Damage nominal.

January 11.—On voyage from Newcastle, New South Wales, to San Francisco, Cal., with cargo of coal, the ship *Eclipse* sprang a leak. Although the pumps were working continually, the water in the hold gained at a steady rate, and the ship was eventually abandoned, the crew setting out in well-provisioned lifeboats. January 12, at midnight, the boat bearing the mate and 7 men suddenly capsized, and 2 of the occupants died from exposure. Value of the cargo and vessel not reported.

January 15.—At Rogers and Mathews landing, Sacramento River, 2 deck hands of the steamer *Reform* were accidentally drowned. The case was investigated and the master and pilot of the steamer *Reform* were exonerated from blame.

January 19.—The steamer *F. A. Kilburn*, at sea, blew out 2 of her boiler tubes, scalding William Hanes, fireman. The case was investigated and the chief and first assistant engineers of the steamer were exonerated from blame. Damage estimated at $150.

January 29.—A chinese woman passenger disappeared from on board the steamer *Isleton*, navigating the Bay of San Pablo. It is believed she committed suicide by jumping overboard.

February 4.—J. F. Stackland, a passenger on the steamer *J. B. Stetson*, jumped from the wharf at San Francisco in an attempt to board the steamer, at 11 p. m., and was drowned. The gangway was lighted and there was a watchman on deck at the time.

February 8.—Basil Hall, chief engineer of the steamer *F. A. Kilburn*, was charged with violation of section 4441 of the United States Revised Statutes. Defendant admitted the charge and his license was suspended April 15 for 15 days.

February 9.—Castano Baletrice, fisherman on the steamer *Pedro Costa*, was washed overboard and drowned before a boat could be lowered to rescue him. The steamer was navigating the Gulf of Farallones at the time, and all possible efforts were made to save the man.

February 9.—Daniel Porter, seaman on the steamer *Defiance*, was carried overboard by a sea off Point Lobos, Cal., and drowned, though prompt efforts were made to rescue him.

February 21.—The license of Daniel W. Thomsen, master, was suspended for 60 days for reason of negligence and unskillfulness on his part in connection with the ship *Shenandoah* grounding off Four-Fathom buoy, San Francisco Bay, while in tow by the tug *Liberty*, Captain Thomsen, master, December 26, 1907.

March 3.—A passenger named Hanibal Curnow fell overboard from steamer *Mary Garratt*, on the San Joaquin River above Head Reach cut, Cal., and was drowned, although lifeboat was promptly lowered and steamer put back on her course.

March 17.—Steamer *Pomona*, 1,264 gross tons, Charles Swanson, master, struck a submerged rock near Fort Ross, Cal. The master decided to beach the vessel, but in the attempt she went on a reef and became a total loss. All passengers and crew were landed safely by means of the ship's boats. Case investigated and the license of Captain Swanson was suspended for 6 months for reason of negligence and unskillfulness, on April 8. The *Pomona* was valued at $120,000 and her cargo at $15,000.

March 17.—While the steamer *Samoa* was lying at her wharf in San Francisco, James Delehandy, fireman, in the act of descending from the deck load to his room, slipped and fell, breaking his neck.

March 31.—The steamer *Hornet* struck a rock off Greenwood, Cal. Case investigated and license of N. F. Marxsen, master and pilot, was suspended May 28 for a period of 60 days for reason of negligence and unskillfulness. Damage, about $1,500.

March 31.—While passing the buoy off Point Bonita, Cal., the barge *Rufus E. Wood*, in tow of the steamer *Francis H. Leggett*, caught in an eddy, became unmanageable, and swung against the buoy, carrying away the moorings of same. Under instructions of Hon. George Uhler, Supervising Inspector-General, dated May 5, 1908, Charles Reiner, master of the steamer *Francis H. Leggett*, was summoned to appear for trial for violation of section 23, Rule V, of the rules and regulations. Investigation was accordingly held, and the license of Captain Reiner was suspended July 17, 1908, for 30 days, for failure to make report of the carrying away of the Four-Fathom east-end buoy on March 31.

April 1.—Mr. J. L. Herron, a passenger on the steamer *Hanalei*, disappeared from on board about 3 a. m., 2 hours out from San Francisco, and it is thought that he may have jumped overboard. Weather mild and sea smooth.

April 5.—In crossing Humboldt Bay bar the steamer *Johan Poulsen* touched several times in the channel without serious damage.

April 18.—At San Pedro, Cal., the gasoline launches *Eagle* and *Raymo* collided, and at the same time the launch *Virginia*, in attempting to pass, sagged against the *Raymo*. Case investigated by the supervising inspector, and decision rendered August 1, suspending the license of E. E. Napier as master for a period of 30 days.

April 28.—The steamer *Argo* grounded in the Eel River. She was floated to deep water July 11. Her keel was damaged for about 32 feet. Damage, about $1,000.

April 28.—The license of Thomas Eistrat, master of steam vessels, was revoked this date for reason of his illegal naturalization.

April 29.—Mr. Bernhard Johnson, third mate of the steamer *Nann Smith*, received fatal injuries by falling down the main hatch while the steamer was at anchor in San Francisco Bay.

May 3.—The gasoline schooner *Newark* grounded at anchor one-half mile east of Monterey, Cal., and was pulled off with the assistance of a tug. Damage nominal.

May 5.—Mr. Joseph Devine, deck hand on steamer *H. E. Wright*, jumped ashore to take a line, but lost his balance and fell back into the San Joaquin River at Palin No. 1 landing. Prompt efforts were made to rescue him, but without avail.

May 9.—The gasoline boat *Pickett*, under 15 gross tons, was alleged to have violated pilot rules on the Bay of San Francisco. Case not investigated.

May 11.—Mr. James H. Johnson, chief engineer of the steamer *Coaster*, charged with intemperance. Case investigated; charge sustained, and license of Mr. Johnson as chief engineer of ocean steamers was suspended May 29 for 60 days.

May 15.—The whaling steamer *William Baylies*, 380 gross tons, was crushed in the ice in latitude 63° 36′ N., off the coast of Siberia, and became a total loss. All on board were rescued by the steamer *Bowhead* 17 hours later, and landed at Nome, Alaska. Value of the vessel about $32,000.

May 18.—While in the act of blowing tubes in boiler of steamer *Roanoke* at Eureka, Cal., gases from the fuel oil caught fire, scalding 2 firemen, who were treated for their injuries at the hospital at that port.

May 19.—The freight steamer *Transit*, shortly after leaving her berth at San Francisco, broke the lower strap on connecting rod, breaking the walking beam, cylinder head, etc., and wrecking the engine generally. Damage estimated at $8,000.

May 21.—While entering her slip at Washington street wharf, San Francisco, Cal., the steamer *Isleton* collided with the steamer *Vigilant*. No damage to either steamer.

May 26.—Mr. John Connors, fireman on the steamer *Argyll*, received fatal injuries through the ignition of gases from the fuel oil while the steamer was as Oleum, Cal.

May 29.—The license of Hjalmar Danskanen, second mate of steam vessels, was revoked this date for reason of an illegality in his naturalization.

June 2.—The steamer *Asuncion* struck on a bar in the Columbia River, Oregon. The bar was reported smooth, but when the steamer was crossing she met with a short, choppy sea and struck 7 times, causing her to leak and bending her sternpost. Damage estimated at about $7,000.

June 2.—Mr. O. W. Parker, pilot of the ferry steamer *San Jose*, charged with violation of section 12, Rule X, of the pilot rules, May 6. Case investigated and charge sustained, and license of Mr. Parker as master and pilot was suspended June 12 for 1 day.

June 2.—Mr. B. N. Rideout, pilot of the passenger steamer *Modoc*, charged with violation of section 12, Rule X, of the pilot rules, May 6. Case investigated and license of Mr. Rideout as master and pilot was suspended on June 12 for 1 day, the charge having been sustained.

June 2.—Mr. Otto J. Johnson, pilot of the steamer *J. D. Peters*, charged with violation of section 12, Rule X, of the pilot rules, May 6. Case investigated and charges sustained, and license of Mr. Johnson as master and pilot was suspended June 12 for 1 day.

June 3.—Mr. George J. De Coursey, operator of motor boat *Crowley No. 3*, charged with violation of the pilot rules, June 2, 1908. Case investigated, charges sustained, and the license of Mr. De Coursey was suspended July 20 for 30 days.

June 6.—The steamer *Iaqua* struck bottom on Humboldt Bay bar. The vessel took considerable water, but the steam fire pump kept it clear, and she continued her voyage to San Francisco safely. Damage about $800.

June 8.—The steamer *Lucy Neff*, from New York for San Francisco, put into San Pedro, Cal., June 8, with her thrust shaft broken and rudder damaged, and was towed to San Francisco. Damage estimated at about $1,000.

June 8.—While the steamer *Defiance* was assisting steamer *Governor* to dock at Sea Wall, San Francisco, the starboard propellor of the *Governor* struck the port quarter of the *Defiance*, puncturing her hull and causing her to fill.

June 13.—Mr. A. Fay, owner of the steamer *Weitchpec*, was charged with violation of section 4465 of the Revised Statutes at Sacramento, Cal. The above matter was reported to the collector of customs at San Francisco, Cal.

June 15.—The freight steamer *Claremont* broke her tail shaft at sea off Point Rayes, Cal., and put into San Francisco under sail. Damage estimated at $1,000.

June 17.—On her way from San Francisco to San Pedro, Cal., it was noticed that the crank shaft of the steamer *Hanalei* was broken. After several unsuccessful attempts to make the proper repairs, ship was finally enabled to tie up at her dock in San Pedro. Damage estimated at $1,800.

June 30.—The steamer *Aurora* collided with the schooner *Margaret C.*, in the San Joaquin River, Cal. The steamer's bobstay and 12 feet of her bulwarks were carried away. Damage about $50.

July 2.—The steamer *W. S. Porter* grounded lightly on Orizaba reef, near St. Michael, Alaska, in a thick fog. The steamer had been stopped for some time and was drifting with the tide. Two plates were cracked and 3 frames bent. Water kept under control with pump, and vessel arrived at San Francisco for repairs. Damage estimated at about $5,000.

July 2.—The steamer *Acme*, at sea during a strong northwest wind, shifted her deck cargo 2 feet to starboard. The lashing was released and cargo (lumber) dumped overboard. Value of the lumber lost, $500.

July 3.—The gasoline boat *Suisun City* caught fire from the explosion of a lantern in the engine room, while navigating Oakland Creek, damaging boat approximately $9,000. Case investigated and licensed officers of the vessels exonerated July 23.

July 3.—The schooner *Zampa* collided with the steamer *Daisy Freeman* at sea 3 miles west of Point Vincent, Cal. Case investigated and the officers of the steamer exonerated from blame. Damage nominal.

July 10.—The steamer *Lansing* grounded very lightly off Double Point, Cal., in a dense fog, while endeavoring to locate the light-ship. Case investigated and master of the steamer exonerated September 18.

July 11.—The steamers *Acme* and *Iaqua* collided in Humboldt Bay, Cal. Case investigated and decision rendered August 18, suspending the license of Alfred Hansen, master of the *Iaqua*, for 60 days for negligence and unskillfulness, and the license of Gudmund Olsen, master of the *Acme*, for 15 days, for violation of the pilot rules. The damage to the *Acme* was about $2,000 and to the *Iaqua* about $1,000.

July 15.—While getting underway from Alameda Point, the barge *Santiago*, in tow of the steamer *Restless*, collided with the ferry steamer *Thoroughfare*. No damage.

July 15.—Mr. William W. Smith, second assistant engineer of the steamer *F. A. Kilburn*, charged with negligence and inattention to duty. Charge admitted and Mr. Smith's license was suspended July 23 for 15 days.

July 16.—Mr. Perdo Neves, deck hand on the steamer *San Joaquin*, made a misstep and fell overboard at Walter Gammon's landing, Sacramento River. Prompt efforts were made to rescue him, but without avail.

July 17.—San Joaquin buoy No. 8, in the Sacramento River, was carried away by some piles in tow of the steamer *Millie*. Efforts were made to avoid the buoy by changing the course of the steamer, but without avail.

July 26.—Mr. John Gracia, of Morro, San Luis Obispo County, Cal., was charged with violation of section 4463 of the Revised Statutes. The case was, on July 31, 1908, reported to the collector of customs at San Francisco.

July 27.—A log raft in tow of the steamer *Dauntless* took a broad sheer and carried away Peacock Spit buoy No. 1½ from its moorings on the Columbia River bar.

July 28.—The steamer *Juliette* and the motor boat *Pirate* collided in Oakland Creek, Cal. Damage to the *Juliette* $1,000, and to her cargo $2,500. Case investigated and the license of Charles Jarvis, as master and pilot, was suspended for 15 days for negligence and unskillfulness. Charles T. Gillard, a licensed operator of motor boats and the owner of the motor boat *Pirate*, had his license suspended at the same time for 60 days for allowing a boy to navigate his launch on the above occasion. On September 25 Charles Jarvis appealed to the supervising inspector from the above decision. The case was reheard, and on October 6 the decision of the local inspectors was sustained.

July 30.—The steamer *F. M. Smith* and the gasoline boat *Pike County* collided in the Sacramento River, Cal. Case investigated, and on October 6 the license of M. C. Hansen, master and pilot of the *F. M. Smith*, was suspended for 30 days for violation of Rule VI of the pilot rules. On the same date the license of Peter Baum, pilot of the *Pike County*, was suspended for 20 days for violation of Rule I of the said rules. Peter Baum appealed to the supervising inspector from the above suspension of his license. The case was reheard, and on October 9 the decision of the local inspectors was modified to 10 days. Damage about $500.

August 4.—In the absence of the local inspectors on leave, the supervising inspector was advised of the improper naturalization of Luigi Beverino, licensed operator of motor boats, and he was ordered to surrender his license for revocation. License surrendered January 26, 1909, and revoked.

August 6.—The steamer *Valetta*, navigating about 40 miles above Sacramento, Cal., broke her wheel shaft, main bearings, and 1 cylinder head. Damage estimated at $1,000.

August 7.—The steamer *Point Arena* while making in for Fort Ross, Cal., struck what is known as Monterey rock. Damage nominal.

August 11.—The low-pressure steam chest and cover of the cylinder of the steamer *Grays Harbor* carried away on the Bay of San Francisco. No one injured. Damage about $200.

August 11.—The steamer *Charles Nelson* broke her after-crank shaft at sea and arrived at San Francisco under steam August 14, with forward and intermediate cylinders. Damage about $1,600.

August 12.—Mr. William F. Madsen, second officer of the freight steamer *Tamalpais*, fell off the log boom at Holmes Mill, Eureka, Cal., and was drowned. Life was extinct when his body was taken from the water.

August 12.—The steamer *Phoenix* collided with the Main street wharf, San Francisco, damaging her stem slightly.

August 16.—While the steamer *Casco* was lying at Monticello wharf, Wash., John C. Ryan, chief engineer, fell overboard and was drowned. Every possible effort was made to save him, but without success.

August 16.—On her voyage from Astoria, Oreg., to San Francisco a smothering fire was discovered under the port boiler of the steamer *Yellowstone*, but was extinguished promptly. Damage nominal.

August 17.—While the steamer *Aberdeen* was navigating cautiously in a thick fog at the entrance of Humboldt bar, she struck bottom 4 times and was finally beached on account of the water getting up to the fires in the engine room. Case investigated and decision rendered September 2, suspending the license of O. C. Hansen as master and pilot for a period of 30 days because of negligence and unskillfulness on his part, Damage to the *Aberdeen* estimated at $5,000. Captain Hansen appealed on October 2 to the supervising inspector from the above decision. The case was reheard and the decision of the local inspectors was sustained.

August 19.—The ship *Lucile*, 1,402 gross tons, while lying at anchor in the mouth of the Ugashik River, Alaska, parted her cables and was driven on shore, becoming a total loss. Case investigated, and the master and chief mate of the *Lucile* were exonerated on December 7. The value of the vessel is estimated at $30,000 and the value of her cargo at $150,000. The master was injured on the above occasion, and was not discharged from the hospital until November 5, which prevented the investigation of the case earlier.

August 21.—Mrs. J. E. Hanley, a passenger on the steamer *Brooklyn*, was lost overboard and drowned at sea off Point Conception, Cal.

August 22.—A passenger on the ferry steamer *Bay City* jumped overboard in the Bay of San Francisco and was drowned. A lifeboat with 4 men was promptly lowered, but he sunk before it could reach him.

August 23.—The steamer *Roma*, while proceeding cautiously to sea from San Pedro, Cal., during a thick fog, collided with breakwater at that place. Damage not ascertained.

August 23.—Mr. Joe Silva, deck hand on the steamer *Weitchpec*, while helping to haul in the gang plank, fell overboard and was drowned before the lifeboat, which was immediately lowered, could reach him.

August 24.—The steamer *Capastrano* and the government steamer *General Harris* collided lightly on the Bay of San Francisco.

August 28.—The machinery of the steamer *Centralia* was damaged by a broken check-valve stem near San Pedro, Cal., and she returned to that port for repairs. Damage about $50.

August 28.—A passenger on the ferry steamer *Claremont* committed suicide by jumping overboard in the Bay of San Francisco. A lifeboat was promptly lowered, but the man was never seen again.

The steamer *Shna Yak* struck on Point Arena reef, Cal., in a very dense fog, and in order to save the ship the lashings were cut and the deck load of lumber allowed to go overboard. Damage to vessel about $5,000, and value of cargo lost about $800. Case investigated and the license of William E. Hutton, master and pilot, was suspended December 29 for a period of 30 days for negligence and unskillfulness.

September 2.—Mr. Christ Hillson, foreman of barge in tow of the steamer *E. P. Ripley*, was missed on arrival at Mare Island, and it is believed he fell overboard and was drowned.

September 4.—A fire broke out in the forecastle of the steamer *Thomas L. Wand* at Aberdeen, Wash., and was quickly extinguished. Origin of the fire unknown. Damage, nominal.

September 5.—The steamer *Point Arena* struck lightly against a bridge in Oakland Creek, owing to the man at the wheel misunderstanding the signals of the master.

September 7.—A fishing boat tried to sail across the bow of the tug *Crolona*, and was capsized. The occupants of the boat were readily rescued by the crew of the *Crolona*. No lights were exhibited on the fishing boat.

September 11.—The ferry steamer *El Capitan* broke her main shaft on the port side while navigating the Straits of Carquinez, and proceeded to South Vallejo with the starboard wheel. Damage, about $4,000.

September 12.—The steamer *Winnebago* grounded on Ediz Hook, near Port Angeles, Wash. Damage not ascertained.

September 13.—While the ferry steamer *Tiburon* was entering her slip at San Francisco, it was discovered that her port shaft was broken. Damage, about $7,000.

September 19.—An explosion of fuel oil took place on the steamer *San Gabriel* at San Pedro, Cal., while the after-peak tank was being filled. Mr. H. Olsen, chief engineer, was in charge, assisted by Mr. W. Kendall, chief mate, and 2 longshoremen. Both of the above officers were fatally injured. Mr. Kendall died at the Angelus hospital, Los Angeles, September 22, and Mr. Olsen died the following day. Case was investigated by the local inspectors, but no blame could be attached to any of the licensed officers of the *San Gabriel*. Damage, about $250.

September 19.—The steamer *Riverside*, while coming to her wharf in San Francisco, took a sheer and before it could be overcome, she struck the wharf. The reversing engines failed to work at the time.

September 20.—The bark *Star of Bengal* was wrecked on Coronation Island, Alaska. Under instructions from the Supervising Inspector-General, October 9, testimony of as many of the survivors of the ill-fated bark as could be summoned, was taken by the local inspectors of San Francisco, as well as the testimony of several members of the crew of the tugs *Kayak* and *Hattie Gage*, who happened to be in San Francisco, and this testimony was forwarded to the Juneau board, where the investigation was to be completed.

September 21.—The steamer *Roma* grounded near Montara Point, Cal., in a dense fog while proceeding cautiously, striking bottom 2 or 3 times. Case investigated, and the master of the *Roma* exonerated from blame October 27. Damage, about $15,000.

September 24.—The scow *Eva*, while attempting to tack ahead of the steamer *Helen P. Drew*, near Black Point, Bay of San Francisco, missed stays and fell off. The steamer stopped and backed, but before she lost headway gave the scow a slight glancing blow.

October 7.—The steamer *George W. Elder* collided with the steamer *Wellesley* lying at anchor at San Pedro, Cal. Weather was very foggy, and the *George W. Elder* was proceeding under a very slow bell. Damage slight.

October 8.—The steamer *Sehome* and the gasoline launch *Marie L.* collided lightly at pier 3, San Francisco, Cal.

October 8.—The steamer *Asuncion* collided with the steamer *Norwood* about 4 miles off Punta Gorda, Cal. Case investigated, and the license of George E. Bridgett, master and pilot of the steamer *Asuncion*, was suspended November 18, for 60 days for violation of article 16, international rules; and for the same reason the license of Emil Larson, chief mate of the *Asuncion*, was also suspended for 60 days. The master and chief mate of the steamer *Norwood* were exonerated. The *Asuncion* was damaged to the extent of about $15,000, and the *Norwood* about $10,000. Captain Bridgett and Chief Mate Larson appealed jointly to the supervising inspector, November 27, from the decision of the local inspectors. The case was accordingly reheard and on December 15 the decision of the local board in the case of the appellants was sustained.

October 14.—The steamer *Brunswick* collided lightly with the schooner *Fred J. Woods*, 681 gross tons, at sea off Point Reyes, Cal., during rain and thick fog. Case investigated and the master of the steamer *Brunswick* exonerated from blame.

October 14.—The license of William Herhold, as operator and navigator of motor vessels, was this date revoked because of his illegal naturalization.

October 14.—The license of William Herhold, as second-class pilot of steamers, was revoked because of his illegal naturalization.

October 21.—The steamer *Despatch* collided with the steamer *Ida W.* in Oakland Creek, Cal. Damage, about $500. Case investigated and the license of Milford J. Brown, second-class pilot, in charge of the *Ida* W., was suspended December 4, for 15 days for violation of Rule I of the pilot rules. Mr. Brown appealed to the supervising inspector on December 7 from the decision of the local board. The case was reheard and the decision of the local inspectors sustained December 10.

October 22.—The crank shaft in after web of the tug *Pilot* broke at sea off light-ship No. 70. The steamer steamed slowly into San Francisco. Damage, about $300.

October 24.—While crossing bar at Coos Bay, Oregon, the steamer *M. F. Plant* encountered a heavy cross sea, causing her to touch bottom. Her rudder and rudderpost were bent, and her wheel ropes parted. The vessel was towed to San Francisco. Damage, about $1,000.

November 3.—The steamer *Mariner*, in a dense fog, on the Bay of San Francisco, collided with the scow schooner *Port Costa* at anchor. Damage nominal.

November 9.—While the steamer *Wellesley* was proceeding from Eureka, Cal., to sea in tow by the tug *Ranger*, she took a sudden list to port in a heavy tide rip, causing her deck load to shift. The lashings held, however, and the steamer continued to list, putting her bulwarks under water. No apparent damage to the hull.

November 9.—The ferry steamer *Bay City* broke her main shaft on the starboard side on the Bay of San Francisco, and was towed to Oakland Mole. Damage, about $7,000.

November 11.—In a dense fog in Mandaville Reach, San Joaquin River, California, the steamer *J. D. Peters* collided with the schooner *H. Bendal.* The light on the schooner was obscured by her mainsail. The *J. D. Peters* was whistling regularly, and keeping proper lookout. Damage nominal.

November 14.—The license of Bruno Neilson, operator of motor boats of 15 gross tons or less, was revoked because of his improper naturalization.

November 14.—The steamer *J. D. Peters* struck a snag in the San Joaquin River, California, between Venaglia Island and Oakland Ranch. Temporary repairs were made and the vessel proceeded to San Francisco. Damage estimated at $125.

November 21.—The license of Alexander McGillivray, third assistant engineer of ocean steamers, was revoked because of his improper naturalization.

November 23.—The steamer *Cascade* broke a propeller blade at sea on her voyage to Grays Harbor. Damage estimated at $500.

November 30.—The steamer *Pasadena* struck some sunken obstacle in the Santa Barbara Channel, 10 miles offshore, breaking 1 of her propeller blades.

November 30.—Mr. William J. Biggy, chief of police of San Francisco, was missed from on board the police launch *Patrol*, on the Bay of San Francisco. His body was subsequently recovered.

December 1.—The steamer *Meteor*, while entering San Pedro Harbor, California, touched bottom lightly. No damage.

December 6.—In a very dense fog on the Bay of San Francisco the ferry steamers *Oakland* and *Newark* collided. Case investigated, and the pilots in charge of the respective steamers were exonerated December 29. Damage about $5,000.

December 6.—In a very dense fog on the Bay of San Francisco the ferry steamer *Berkeley* struck her slip at Oakland, Cal. The concussion knocked 1 of the lifeboats off her davits, and it fell upon passengers gathered forward, injuring several seriously. Miss Kate Crowley, a passenger, received injuries by being trampled upon in the excitement, from which she died. Case investigated, and the pilot in charge of the *Berkeley* was exonerated on December 17. Damage about $600.

December 7.—The steamer *Hanalei* broke her high-pressure piston rod and cylinder head and part of the cylinder, at sea off Point Buchon, California, and was towed into San Francisco by the steamer *J. J. Loggie*. Damage estimated at $1,800.

December 7.—In avoiding a collision in a dense fog with the steamer *Sea Foam*, on the Bay of San Francisco, the steamer *Transit* touched the port quarter of the United States steamer *Arethusa*.

December 11.—The license of Oscar Sporgeon, chief mate of steam vessels, was revoked for reason of an irregularity in his naturalization. Mr. Sporgeon had voluntarily surrendered his license at this office.

December 13.—The steamer *Modoc* collided with the steamer *Valletta* near Courtland, Cal., on the Sacramento River. Case now under investigation. Damage estimated at $6,000.

December 14.—The steamer *G. C. Lindauer*, while proceeding to her berth in Oakland Creek, ran on a steep mud bank. During the night when the tide ran out, she took a list to starboard and filled. Damage estimated at $500.

December 14.—In navigating on San Francisco Harbor the steamer *Helen P. Drew* lost 1 of her propeller blades. Steamer returned to port for repairs. Damage about $500.

December 16.—In getting away from the wharf at San Pedro, Cal., in a strong wind, the steamer *Willaim H. Murphy* drifted onto a gasoline launch which was moored alongside the wharf. No damage.

December 19.—The license of John Strang, operator of motor boats of 15 tons or less, was revoked because of his illegal naturalization.

December 23.—The steamer *Riverside* collided with the steamer *San Pedro* in Oakland Creek, California. Case to be investigated.

December 25.—Fire occurred on the steamer *Maggie* while the fireman was starting the fires. Damage nominal. No other person on board the vessel at the time.

December 25.—The steamer *Carlos* encountered a very heavy southwest squall off Tillamook Head, which listed her over to port. The forward lashings were let go, and about 30,000 feet of lumber, valued at $200, went overboard. The vessel then righted herself.

December 31.—While the steamer *Pride of the River* was coming to landing A-44, Sacramento River, California, a deck hand named Dick Sunderman fell overboard and was drowned.

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December 30.—Steamer *Annie Comings* collided with french bark *Europe* which was at anchor in the Willamette River, just below St. Johns, Oreg. Steamer *Annie Comings* sunk. Hull total loss. Estimated damage, $10,000. Boiler and machinery, valued at $10,000, afterwards recovered. Cargo consisting of machinery recovered. Estimated damage to cargo, boiler, and engines, $500. Damage to bark *Europe*, $840. No one injured. Case investigated January 13 and 20, and license of Charles Spinner, master and pilot, in charge of watch on steamer *Annie Comings*, suspended for 6 months from January 25, 1908, for carelessness and negligence.

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January 4.—Steamship *Breakwater*, while on Coos Bay bar, shipped a heavy cross breaker, stoving in upper works on port bow and carrying away forecastle and lamp locker bulkheads and part of steerage bulkhead. Four men injured. Steamer returned to North Bend for medical assistance, where 1 of the 4 injured men, the steerage mess boy, died on the operating table. Estimated damage to steamer, $300. No damage to cargo.

January 13.—After landing at Pekin, Lewis River, Washington, a passenger, Mr. Axtel Johnson, while under the influence of liquor, attempted to pass from the steamer *Tahoma* to the gasoline scow *Speilei* and fell overboard and was drowned before assistance could reach him. Body not recovered.

March 6.—While the steamer *Hassalo* was en route from Astoria to Portland, Oreg., the crank-pin strap on port engine gave way, breaking cylinder, crosshead, piston rod, and piston. Damage about $3,500. No one injured.

March 13.—At 6.30 p. m., gasoline boat *Berwick*, while crossing Siuslaw River bar, struck some unseen obstruction, rendering port propeller useless. Vessel stranded on north side of Siuslaw River. No lives lost. No one injured. Freight and machinery saved. Hull total loss, valued at about $6,000.

April 11.—Complaint was filed with this office by Capt. B. W. Olsen, master of the steamship *Alliance*, as to the conduct of Capt. Charles T. Bailey, master of the bar tug *Tatoosh* at the time the *Alliance* was partially disabled off the mouth of the Columbia River, December 2 and 3, 1907. Investigation held May 22, and Capt. Charles T. Bailey exonerated, as charges preferred were not sustained.

May 2.—Steamship *Minnie E. Kelton*, when about 8 miles off Yaquina light, Pacific Ocean, was struck by a heavy sea, carrying away house, deck load of lumber, and 11 of the crew, who were drowned. Vessel afterwards towed to Astoria, Oreg., in a water-logged condition. Estimated damage to vessel, $30,000. Loss of cargo, $4,000. Investigation begun May 9 and concluded May 16, and officers and crew exonerated from all blame in connection with the loss of life and damage to vessel.

July 7.—While steamer *Joseph Kellogg* was lying at Rainier, Oreg., Mr. G. Graham, a deck hand, fell overboard and was drowned before assistance could reach him.

July 26.—At 9.30 p. m., while the steamer *Vulcan* with a raft of logs in tow was passing through the harbor at Portland, Oreg., a rowboat occupied by Mr. E. J. Jeannet and Miss T. Stevens attempted to pass between the steamer *Vulcan* and the raft of logs she had in tow, but were caught under the towline, which capsized the boat, drowning Miss Stevens. Investigation held July 28, and master of the steamer *Vulcan* exonerated.

August 8.—At 2.30 a. m., during a thick fog, steamship *Washington* grounded near Walalla Point Island, Pacific Ocean, striking 4 or 5 times. Estimated damage to hull, $1,500. No damage to cargo. No loss of life. Investigation held August 14, and license of W. H. Batchelder, first officer, suspended for 60 days for carelessness, negligence, and inattention to duty. License of Leo Miller, second officer, suspended for 30 days for negligence. Steamer ordered on dry dock, examination made of hull, and repairs ordered August 19.

August 31.—At 9.30 p. m., when abreast of the oil dock, near St. Johns, Willamette River, Oreg., a passenger, name not known, either fell or jumped overboard from the steamer *Hassalo*. Three lifeboats were immediately lowered and 40-minute search made for body without result.

September 9.—Investigation made of charges of intoxication against Bernard A. Hinz, licensed operator of motor vessels of 15 tons gross and under, and his license revoked for intoxication while acting under authority of his license.

September 24.—While the steamer *Rose City* was landing at her dock, Portland, Oreg., Mr. Z. A. Lewis, a water tender on duty, was caught between main-engine exhaust column and reversing-engine draglink arm. Mr. Lewis was immediately removed to the hospital, where he died September 25.

October 2.—While crossing Tillamook bar, steamship *Bandon* struck an obstruction and began making water rapidly. Ship was beached on mud flats in Tillamook Bay in a water-logged condition. Damage to ship and cargo not given. No one injured. No loss of life.

October 5.—At 12.40 p. m., when the steamer *Ione* was about 30 miles below Newport, Pend d'Oreille River, Wash., Pete Olsen, a deck hand, accidentally fell overboard and was drowned before assistance could reach him.

October 27.—During heavy fog the steamer *Hassalo* collided with the steamer *Hercules* with barge in tow near Stella, Columbia River, Wash. No one injured. Estimated damage to steamer *Hassalo*, $800. No damage to steamer *Hercules*.

November 2.—While steamer *J. N. Teal* was on down trip and when just below McGowens, Columbia River, Oreg., crank-pin strap on port engine carried away, causing complete wreck of cylinder. No one injured. Estimated damage, $500.

November 10.—At 3.30 p. m., while steamship *Nome City* was en route up the Columbia River, E. T. Butler, a passenger, jumped overboard when opposite Doublebower, Oreg., and was drowned. Body recovered 10 minutes later.

December 21.—While backing out from Wind River landing, Columbia River, Wash., steamer *Dalles City* struck a sunken snag, breaking a small hole in her hull. Steamer beached and bulkhead built around hole and steamer brought to Portland, Oreg., under her own steam. No one injured. No damage to cargo. Estimated damage to hull $125.

December 25.—When the steamship *Senator* was a short distance above Altoona, Columbia River, Wash., the messenger from wheel to steering engine came off, putting steering gear out of commission. Steamer ran into wharf at Altoona, Wash., doing about $2,000 damage. No damage to steamer.

LOCAL DISTRICT OF SEATTLE, WASH.

January 15.—The license of Christopher Grindrod, operator and navigator of the motor launch *Lark*, was suspended for 30 days for failing to succor Capt. E. W. Peterson, who was adrift on a small float, when passing him near by and observing his signals of distress.

January 15.—While en route from Valdez to Cordova, Alaska, the steamer *Portland* struck a submerged, uncharted rock off Windy Bay, Hawkins Island.

January 16.—A fire occurred in the upper between decks of the steamer *Tremont*, at Tacoma, Wash., damaging 6 deck frames and 8 deck plates. About 550 bales of cotton were damaged by fire and water.

January 19.—The steamer *Charles Nelson*, bound from San Francisco to Seattle, during a gale, encountered a heavy sea when off the mouth of the Columbia River, which filled her decks even with the rail, at which time it is supposed that Nils Laine, A. B., was washed overboard and drowned. About half an hour after the sea boarded the vessel he was missed, and after a thorough search of the vessel he could not be found.

January 22.—As the motor launch *Princess* was about to make a landing at Rainier beach, Lake Washington, a passenger named Andrew Saadia jumped, presumably for the float, and went overboard and was drowned. A rope thrown to him became entangled in the propeller, which interfered with measures for his rescue.

January 23.—The steamer *Minnesota* grounded in Shimonoseki Straits while endeavoring to avoid a collision with 2 sail vessels which were discovered close ahead without any lights displayed. The ship remained aground about 2 hours and then backed off without assistance. A survey was called and the ship's bottom was examined by divers, who found no damage to the hull.

January 23.—The steamer *Jeanie* grounded off Bligh Island reef, Alaska, during a blinding snowstorm. Amount of damage not reported. Case investigated February 26 and March 11. Officers exonerated.

January 30.—Investigated the grounding of the steamer *Alaskan* near Shelter Point, British Columbia, which occurred on December 9, 1907. Officers exonerated.

February 3.—Harry Hughes, purser on the steamer *Dorothy*, plying on Lake Washington, fell overboard and was drowned before the boat which was lowered could reach him. Investigated February 29 and officers exonerated.

February 17.—While entering the narrow channel at Port Gamble, Wash., the steamer *Dode* ran aground on the mud flats. Passengers and mail were sent ashore in the ship's boats. The vessel listed and filled with water with the incoming tide. Vessel freed from water and towed to Seattle, February 22. Damage, $500. Case investigated February 27 and 28 and officers exonerated.

February 25.—The steamer *Santa Clara* left Seattle February 24, bound for Catalla, Alaska. On February 25, when about 40 miles off Cape Flattery, and laboring in a heavy sea, the ship was found to be leaking. The leak gaining, she was turned back, arriving at Seattle February 26. After discharging her cargo the ship was docked for survey. Immediately before the voyage the ship was docked and repaired, at an expense of about $25,000.

March 18.—The license of Fred E. Wyman, master and pilot, was suspended for 15 days for allowing the equipment of the steamer *Geo. E. Starr* to become in bad condition.

March 19.—The license of Patrick Gard, chief engineer, was suspended 30 days for negligence and inattention to duty, in permitting the boiler of the steamer *Geo. E. Starr* to become greasy and dirty.

March 20.—The steamer *Saratoga* grounded on a reef near Ellamar, Alaska, and became a total loss. Value of vessel, $150,000. Value of cargo, $28,000. No loss of life. Capt. L. J. Schage was charged with reckless navigation in connection with this wreck. Case investigated April 4, 6, 8, 28, and May 27. Charges sustained, and his license as master was suspended, June 2, for 90 days.

March 30.—The steamer *Chippewa* collided with the fishing schooner *Lydia*, off Point No Point, Puget Sound. The schooner was sunk and 2 of her crew were drowned. Case investigated April 3, 6, and 7, and the master of the *Chippewa* was exonerated. William May, mate and pilot in charge of the *Chippewa*, was charged with negligence. Investigated April 17, 21, and May 1; charges sustained, and his license was revoked May 5.

April 17.—Albert B. Giblett, chief engineer of the steamer *Dora*, charged with drunkenness. Case investigated April 7 and 8; charges not sustained, and case dismissed.

April 19.—While the steamer *Swinomish* was lying at a wharf above the bridge at Snohomish, Wash., a boom of logs came down the river, carrying her from her moorings and under the bridge, tearing off her house. Damage, $2,000.

April 24.—A slight fire occurred on board the steamer *Edgar*, at Hoquiam, Wash. Damage, $300.

May 1.—The steamer *Utopia* collided with the steamer *Chicago* off Port Townsend, Wash. William P. O'Brien, master and pilot, acting mate of the *Utopia*, was charged with careless navigation on this occasion. Case investigated May 15, 18, and 20; charges sustained, and his license was suspended, June 16, for 60 days.

May 5.—Henry Carter, master and pilot of the steamer *Telegraph*, and Robert W. Jackson, master and pilot of the steamer *Monticello*, each charged with careless navigation in connection with a slight collision between the above-named steamers. Investigated May 12, and their licenses were suspended, June 3, for 30 days.

May 8.—August Anderson, master and pilot of the steamer *Reliance*, charged with careless navigation on the occasion of a slight collision between the said steamer *Reliance* and the steamer *Inland Flyer*. Investigated May 13, charges sustained, and his license was suspended, June 2, for 30 days. Captain Anderson appealed his case to the supervising inspector, first district, who, in decision dated July 10, sustained the decision of the local board.

May 23.—Harris Pickels, master and pilot of the steamer *Waialeale*, charged with violation of the pilot rules in not giving the proper whistle signal on the occasion of the exchange of signals with the ferry steamer *City of Seattle*, in Seattle Harbor, on May 23. Investigated June 26 and July 16. Decision, July 18, suspending the license of Captain Pickels for 10 days.

May 27.—Howell Parker, master and pilot, charged with careless navigation in having run his vessel, the *Virginia Merrill*, into the launch tender of the hospital ship *Relief*, in Tacoma Harbor. Case investigated June 8; charges sustained, and his license suspended, June 13, for 30 days.

June 8–15.—While on voyage to Nome, Alaska, the steamer *Senator*, 2,409 gross tons, was damaged by collision with ice in Bering Sea to the amount of about $11,000.

June 8–15.—While traversing the ice in Bering Sea, the steamer *Victoria*, 3,502 gross tons, received damage amounting to $14,000.

June 29.—While holding boat drill on the steamer *Chippewa*, the vessel being under way, one of the crew, named Walsh, fell overboard and was drowned before a boat could reach him. Careful inquiry shows the accident to have been purely accidental.

July 27.—The license of Henry W. Robinson, master, was revoked on account of invalid naturalization papers.

August 11.—A slight collision occurred between the steamers *Urania* and *Cyrene*, on Lake Washington. Charles R. Kall, pilot in charge of the steamer *Cyrene*, and Oscar Strom, pilot in charge of the steamer *Urania*, were charged with careless navigation. Investigated August 17; charges sustained, and license of each suspended for 10 days.

August 13.—The license of Einar E. Apeland, operator, revoked for discrepancy in his naturalization papers.

August 16.—The steamer *Acme*, 31 gross tons, was burned on Lake Washington, at about 2 a. m., no one being on board at the time. Loss, $2,000. Investigated October 7 and 8. On account of lack of evidence, the cause of the fire, or whether there had been any negligence or carelessness on the part of the crew, was not determined.

August 18.—The license of Walter J. Elliott, engineer of motor vessels, was revoked because of invalid naturalization papers.

August 29.—Arthur Spencer, operator and navigator, charged with unnecessary sounding of the whistle of the motor boat *Ranger* on August 28, at Everett, Wash. Investigated September 3, charges sustained and his license was suspended for 15 days from September 12.

September 8.—While the steamer *Cyrene* was lying at the wharf at Leschi Park William F. Nave, engineer in charge, while intoxicated, drew a gun and attempted to shoot the master, C. R. Kall. Charges were preferred, and the case investigated September 21 and 28. Charges were sustained, and the license of William F. Nave, engineer in charge, was revoked September 28.

September 12.—The steamer *Chippewa*, A. N. McAlpine, master, and the steamer *Sentinel*, Henry Henrickson, master, were in collision in Seattle Harbor during a dense fog. Steamer *Chippewa* uninjured; damage to *Sentinel*, $1,270. Captains McAlpine and Henrickson were each charged with careless navigation. Case investigated by the local board for St. Michael, Alaska, officiating in place of the Seattle board, absent on leave, September 21, 24, and 25. Charges sustained, and their licenses as master and pilot were suspended for a period of 1 month. Henrickson appealed to the supervising inspector, first district, who sustained the decision of the local board.

September 14.—Mr. Ross E. Chesnut, deputy collector of customs at Seattle, Wash., filed a sworn statement with the supervising inspector, first district, complaining of what he believed to be a violation of Rule VI of pilot rules for the inland waters of the Atlantic and Pacific coasts, resulting in the dangerous navigation of the Sound steamer *Indianapolis*, 765 gross tons, and the ferry steamer *West Seattle*, 773 gross tons, when both vessels were nearing the water front of Seattle, about 8.43 a. m. September 9. Investigated by the supervising inspector, first district, September 14, in the office of the local board at Seattle, Wash. Decision, September 30, 1908, ruling that there was no violation of Rule VI of the pilot rules on the occasion referred to.

September 24.—While repairing at Fort Madison, the steamer *Estella*, 27 gross tons, caught fire from the explosion of a lamp and was burned. Loss about $2,000. No loss of life.

September 29.—While bound for Skagway, Alaska, the steamer *Humboldt*, during a dense fog, ran aground on Pendar Island, British Columbia. Vessel was floated after 36 hours by the assistance of a wrecking crew. Damage, $8,000. Investigated October 19 and 20, and master's license of Charles P. McCarthy was suspended 3 months for careless navigation. Mr. McCarthy appealed to the supervising inspector, first district, who, on November 17, reversed the decision of the local board.

October 10.—While the steamer *T. W. Lake* was leaving pier 6, Seattle, Wash., and straightening on her course, she came in collision with the steamer *Fidalgo*. Investigated November 6 and case dismissed.

October 14.—While on her regular trip from Bellingham to Seattle a fire occurred on board the steamer *Utopia*, originating in the galley. Damage to vessel, $1,000. Investigated and officers exonerated.

October 16.—The steamer *Cottage City* collided with the schooners *Blakeley* and *Bainbridge*, each in tow of the tug *Tyee*, near Jefferson Head, Puget Sound, at 11.15 p. m. Damage to *Cottage City* about $10,000. The *Blakeley* received considerable damage to her bow and head gear. *Bainbridge* only slightly damaged. Case investigated October 28 and November 16 and officers exonerated. The accident was found to have been due to fouling of the steering gear.

October 21.—The license of Allan R. P. Shaw, second mate, was revoked for the reason that he was found not a citizen of the United States.

October 26.—The license of Henry Pohl, operator of motor boats, was revoked for reason of invalid naturalization.

October 29.—The license of Henry L. Foshee, assistant engineer, was revoked by direction of the Supervising Inspector-General.

November 8.—While the steamer *Monticello* was en route from Bremerton to Seattle the intermediate section of the main shaft broke. Damage, $1,200.

November 27.—The steamer *Northland*, 571 gross tons, grounded on Enterprise Reef, British Columbia. Damage, $8,000. W. C. Ansell, chief mate in charge of the vessel, was charged with careless navigation. Investigated December 18, charges sustained, and his license was suspended, December 23, for 90 days.

LOCAL DISTRICT OF JUNEAU, ALASKA.

1907.

September 19.—The boiler of the steamer *Katahoon* was burned. Investigation held April 18, 1908, and later dates. On April 22, 1908, the license of Fred O. Westcott, first assistant engineer, was suspended for 30 days for neglect of duty

1908.

January 9.—At 9.18 p. m. steamer *Elsie*, Charles Svensson, master, while going dead slow during a thick snowstorm, struck a rock in Tatitlock Narrows, Prince William Sound, Alaska. No known damage. Case not investigated.

January 14.—Gasoline motor vessel *Fox*, under 15 gross tons, Charles C. McCowagy, operator and navigator, struck a rock off south end Five Finger Island, Frederick Sound, Alaska. Damage to vessel, $150. No loss of life.

March 28.—At 5.12 a. m., while steamship *Dolphin*, John Johnson, master, was passing through Faro Strait, British Columbia, fire broke out in the galley. Fire alarm given and ship stopped. At 5.27 a. m. fire was put out and ship proceeded on its course. Damage to vessel, $100. No one injured.

April 16.—Whaling steamer *Tyee Junior*, Charles C. Graham, master, while proceeding outward from Tyee whaling station, near Point Bartlett, Frederick Sound, Alaska, struck an uncharted rock at low tide. Damage to vessel estimated at $1,000. No one injured. Investigation held April 20. Decision rendered April 22. Officers exonerated.

April 20.—During an investigation of an accident to the whaling steamer *Tyee Junior* at Juneau, Alaska, it was found that Andrew Selness acted as mate while holding a license as second mate, coastwise, only. Matter reported to the collector of customs.

April and May.—Steamer *Olga*, Alfred Debney, master, was operated without a licensed engineer on board, in violation of section 4438, Revised Statutes. Case investigated June 12. No evidence was shown that an attempt had been made to secure a licensed man. Custom-house officer at Valdez, Alaska, having full knowledge of the facts.

June 10.—Alfred W. Debney, second-class pilot, master at Valdez, Alaska, failed to report an illegal fusible plug in boiler of steamer *Olga*, and concealed the fact from Juneau board until found at annual inspection, this date. As a result of investigation violation of section 4448, Revised Statutes, was preferred. Trial at earliest possible date.

June 12 and 13.—Steamer *Olga*, Alfred Debney, master, William A. Beet, acting engineer, unlicensed, had fusible plug melted out of boiler from low water. It was refilled with Babbitt metal by William A. Beet. The master of vessel had full knowledge of condition of boiler and he refused permission to put in a properly stamped plug. Violation of section 4418, Revised Statutes. Case investigated.

July 22.—Felix J. Hubbard, engineer of steamer *Collis*, contracted at San Francisco, Cal., for service as engineer on steamer *Togiak*, or any other vessel of Alaska Packers Association. He was assigned to steamer *Collis*, and later removed for cause and assigned to shore duty. While the vessel was operated without a licensed engineer, in violation of section 4448, Revised Statutes, and this board, being without a stenographer, presented a set of questions to Mr. Hubbard. Up to July 31 no reply had been received, and case was referred to the supervising inspector, first district, and finally dismissed.

August 17.—Steamer *Herbert Hume* was operated without licensed officers on inland waters of Kodiak Island. This condition was found at annual inspection, this date. Ole Johannsen, master, unlicensed; John M. Julin, engineer, unlicensed. Violation of section 4463, Revised Statutes. Vessel is owned by Northwestern Fisheries Company, Seattle, Wash. Agent for owners had no knowledge of the amendment to section 4465, Revised Statutes, prior to this date. Unable to examine men for license on account of citizenship. No licensed men available at this port. No investigation.

August 17.—Steamer *Uyak*, Torgel E. Torgeson, second-class pilot, acting master, was operated from May, 1908, to this date without a licensed engineer. Violation of section 4463, Revised Statutes. Sven Vathne, acting as engineer, had a letter from local board, San Francisco, Cal., dated December 6, 1907, refusing him a license as third assistant engineer of ocean steamers. No licensed engineer available at this port; no investigation. Agent for owners, Northwestern Fisheries Company, Seattle, Wash., had no knowledge of amendment to section 4463, Revised Statutes.

September 19.—Steamer *Koyak*, Patrick Hamilton, master, was navigated without a licensed engineer. Violation of sections 4453 and 4463, Revised Statutes. James Kennedy, master and chief engineer, reports no licensed men available at this time.

September 20.—Erwin Farrer, master of steamer *Hattie Gage*, reports total loss of bark *Steamer of Bengal* and 112 lives. The bark was in tow of steamers *Hattie Gage* and *Koyak*, Patrick Hamilton, master. Steamers were unable to keep the bark from drifting on shore during a southeast gale near Helm, Point Coronation Island, Summer Strait, southeastern Alaska. Value of bark, $60,000. Cargo loss, about $75,000. Lives lost, 112. Investigation in progress.

October.—Steamer *Hattie Gage*, certificated for inland waters of southeastern Alaska, navigated to Blaine, Wash., without any extension of route indorsed on certificate of inspection. Violation of section 4421, Revised Statutes.

LOCAL DISTRICT OF ST. MICHAEL, ALASKA.

1907.

July 15.—Steamer *Iwalani* grounded at Waimea, Kauai, Hawaiian waters. Case investigated. The grounding was found to be an unavoidable accident. Damage estimated at $1,000.

September 30.—F. Lindquist, deck hand on the steamer *Schwatka*, fell overboard while in the act of stepping from the bow of the steamer to a barge in tow. Efforts were made to find him, but without success.

1908.

May 23.—Steamer *Agnes E. Boyd* was destroyed by a breakup of ice in the Kobuk River, Alaska. No loss of life. All efforts to save the vessel were fruitless. Value of the steamer estimated at $2,500.

July 26.—The license of August Karlson, chief engineer of steamer *Seattle No. 3*, was revoked, for reason of intemperance, carelessness, and negligence, and having been found asleep during his watch while the steamer was navigating the Yukon River, Alaska. Mr. Karlson appealed to the supervising inspector on November 27, and, as it was not within the statutory period prescribed by section 4452, United States Revised Statutes, the supervising inspector had no authority to take action.

LOCAL DISTRICT OF HONOLULU, HAWAII.

January 20.—The matter of the grounding of the steamer *Iwalani* at Waimea, Kauai, July 15, 1907, was investigated this date by the local inspectors of St. Michael, Alaska, on official duty at Honolulu, Hawaii, who considered it an unavoidable accident, George H. Piltz, master, being deemed negligent to some extent. Case dismissed. The damage amounted to approximately $1,000.

October 30.—While the Japanese steamer *Hong Kong Maru* was anchoring off bell buoy at Honolulu in water which was reported to be 23 fathoms, and then reported 100, 83, and 68 fathoms, her steam windlass broke in an endeavor to recover anchor and chain, becoming totally disabled and necessitating repairs to same of considerable extent. The vessel was allowed to proceed to San Francisco for that purpose. Damage not ascertained.

SECOND SUPERVISING DISTRICT.

LOCAL DISTRICT OF NEW YORK, N. Y.

January 2.—About 9.05 p. m., while the tugboat *Summit* was off pier 2, Hoboken, N. J., having just left that dock, the engineer, Robert McAllaster, fell overboard and was drowned. The pilot states, in a sworn report, that the oiler stated that Mr. McAllaster stepped outside the engine room near the rail to urinate and fell overboard. Every effort was made to rescue him, but without success.

January 3.—About 1 p. m., tugboats *Seven Brothers* and *S. O. Co. No. 16* had a very slight collision off the Battery, New York. No one hurt.

January 3.—About 11.15 p. m., tugboat *Abram P. Skidmore* and car float in tow of tug *New York Central No. 8* collided off Corlears hook, East River, causing such damage to the *Abram P. Skidmore* that she sunk a few minutes afterwards. The crew of the *Abram P. Skidmore* was taken on board the *New York Central No. 8*. No lives lost. The steward of the *Abram P. Skidmore* sustained some slight personal injury. Trial held and license of Albert Free, master of tug *Abram P. Skidmore*, suspended for 60 days.

January 4.—About 4 p. m., while the tugboat *Hero* was off Governors Island, New York Harbor, the barge *Edward J.*, which she had in tow, and which was loaded with copper ore, listed, and the man on board jumped overboard and was drowned. The pilot of the *Hero* reported, in his sworn statement, that he tried to reach him but was unable to do so before he sunk. Investigated and case dismissed.

January 6.—About 3.10 p. m., ferryboat *Goshen* and barge in tow of tugboat *Geneva* collided in the North River off Chambers street, causing damage to ferryboat and barge. No one injured. Trial on charges held January 24, and decision rendered February 4. License of Oakley Vineyard, pilot of the *Geneva*, and of Frank Day, jr., pilot of the *Goshen*, suspended for 60 days each. Appeal to supervising inspector, second district, who rendered decision, March 7, reducing the suspension from 60 to 30 days in each case.

January 6.—Investigation of the accident to after starboard boiler of the steamer *H. M. Whitney*, which occurred on December 24, 1907. Decision January 16. License of Bertram C. Edwards, third assistant engineer, revoked, and license of Ressie E. Bowser, third assistant engineer, suspended for 9 months beginning January 20. Mr. Edwards appealed to the supervising inspector, second district, who rendered decision June 2 that license be restored to Mr. Edwards on Septemher 20, 1908.

January 10.—About 7.05 a. m., freight steamer *Safety* and steamer *Lillian* collided off Atlantic dock, Brooklyn, N. Y., causing very slight damage. No one hurt.

January 11.—About 6.25 p. m., barge in tow of tug *McAllister Bros.* and barge in tow of tug *S. O. Co. No. 15* collided off Sullivan street, Brooklyn, N. Y., causing damage to the barge in tow of the *McAllister Bros.*, but no damage to the other barge. No one hurt.

January 13.—About 10.40 p. m., tugboats *Interstate* and *Transit* collided off Buckwheat Island in Staten Island Sound, causing considerable damage to the *Interstate.* The master of the *Transit* in his report says that: "When very near the *Interstate,* in putting my wheel to starboard, our wheel ropes got jammed in some way." No one hurt.

January 14.—About 7.15 a. m., tugboat *Hiawatha* and freight steamer *McKeever Bros.* collided in the East River off pier 22, Brooklyn, N. Y., resulting in damage to both vessels. No one injured.

January 19.—About midnight, while the tugboat *Theresa Verdon* was laid up for the night at Elizabethport, N. J., with her full crew on board, fire broke out from some unknown cause, and resulted in considerable damage. No one injured.

January 20.—Decision in the case of trial of James Maxwell, engineer, held January 15, on charge of intemperance while acting under his license on January 8, 1908. Charge found proved and license suspended for 45 days from January 22.

January 20.—About 8.25 p. m., ferry steamers *Wilkes-Barre* and *Syracuse* collided in the North River, off Hoboken, N. J., causing slight damage. No lives lost. Officers of both vessels tried on charge of violation of pilot rules. Charge against R. M. Johnson, pilot of the *Syracuse,* dismissed; and license of George Smith, pilot of the *Wilkes-Barre,* suspended for 30 days. Mr. Smith appealed to the supervising inspector, second district, who revoked the decision of the local inspectors and directed that license be returend to Mr. Smith.

January 20.—About 4.15 p. m., tugboat *Sayre* was bound up the East River, and when off Rivington street, she struck bottom or some sunken obstruction, and sprang a leak. The pumps were started, but water came in rapidly. The tug was then headed for the shore and reached the foot of Third street, East River, landing on the end of the pier, when the tug sunk. No one injured. This accident was reported to the supervisor of the harbor, so that obstruction might be sought for.

January 23.—About 5.16 p. m., tugboat *Guiding Star* and passenger steamer *Maine* had a very slight collision off pier 5, North River. Both steamers were backing, but the strong ebb tide carried the vessels on each other. No one hurt.

January 24.—About 3.30 p. m., tugboat *Murrell,* while at sea, lost barges *Fannie* and *Gwinnie,* which she had in tow. The *Fannie* parted the tow rope in the raging sea and wind, but the crew of 6 men were rescued by a ship line. The master of the tug reports he has been unable to ascertain the fate of the *Gwinnie* and crew, although he has searched the coast from Winter Quarter to Sandy Hook. The crew of the *Fannie* landed at Lewes, Del., and 1 of them died there on January 29. The tug was on her way from Delaware breakwater, with the two barges coal laden for Boston, Mass. There was a moderate northwest wind until tug was off Sea Girt, N. J., on the 23d, when the wind shifted to northeast increasing to a heavy gale with blinding snow, and so continued until 9 p. m., January 24.

January 27.—About 11.40 p. m., barge in tow of tugboat *J. H. Williams,* and ferry steamer *Queens* collided off Governors Island, New York Harbor, causing some damage to the barge and slightly denting a guard on the ferryboat. No one hurt.

January 28.—About 7.30 p. m., tugboat *Edgar F. Luckenbach* and steamship *Pawnee* collided between Governors Island and the Battery, New York Harbor, causing the *Edgar F. Luckenbach* to sink. The *Edgar F. Luckenbach* was on her way from Port Liberty to the Atlantic basin, Brooklyn, and the *Pawnee* was bound out to sea. All of the crew of the *Edgar F. Luckenbach,* excepting one man, was saved. Three of the crew were rescued by means of life-preservers and life rings by the crew of the tugboat *P. R. R. No. 9.* Investigated and case dismissed.

January 28.—On the 4.20 p. m. trip from Twenty-third street, New York, on her way to Jersey City, N. J., across the North River, the ferryboat *Philadelphia,* while the fireman was covering the fires of No. 4 boiler (Thornycroft type) a manifold tube 1¼ inches diameter blew out, slightly scalding Fireman J. R. Wilkinson and Coal Passer John Kelleher. They received medical attendance and then went to their homes.

January 30—About 6.40 p. m., tugboat *M. Moran* and barge in tow of tugboat *Joseph Peene, sr.,* collided off pier 8, Hoboken, N. J., causing slight damage to the barge. The master of the *M. Moran* was tried on charges and case dismissed.

January 31.—About 5.50 p. m., tugboat *New York Central No. 24* and steamship *Colorado* collided off Governors Island, New York Harbor, causing such damage to the tugboat that she sunk in a few minutes after the accident. All of the crew of the tugboat saved with the exception of 1 man. The tugboat was on her way from Brooklyn to Weehawken and the steamship was bound out to sea. After the accident the steam lighter *Towanda* stood by and rendered assistance to the crew of the tugboat. One man saved by means of lifeboat. Investigated, and both masters placed on trial on charges and case dismissed.

February 1.—At 11.30 p. m., while the steamship *El Sud* was at sea on her way from Galveston, Tex., to New York, the cotton in the starboard alleyway, main deck, amidships, was on fire. Holes were cut in the upper deck and water played on the cotton and fire extinguished. Damage to ship, about $600, and to cargo, about $3,500. Damage due to fire and water. An examination was made by an assistant inspector when the vessel arrived at her pier at New York, and found that the necessary repairs were being made.

February 3.—About 2.55 p. m., coal boat in tow of tug *Ira M. Hedges* and car float in tow of tug *Juniata* collided off pier 26, North River, causing such damage to the coal boat that after being towed to Communipaw, N. J., she sunk. No damage to car float.

February 6.—About 4.30 p. m., ferry steamer *Wilkes Barre* and U. S. S. *General Joseph E. Johnston* had a slight collision off Fifteenth street, North River. No damage to the ferryboat, and only denting the starboard side of the *General Joseph E. Johnston.* Investigated and case dismissed.

February 6.—About 7.45 a. m., ferry steamer *Bay Ridge* and tug *Henry Gillen* collided off Erie basin, Brooklyn, N. Y., causing some damage to the tugboat, also to barge in tow. Very slight damage to ferry steamer. There was a thick fog at the time.

February 9.—About 9.55 a. m., barge in tow of tug *Orange* and steamer *Mohegan* collided in Hell Gate, East River, causing slight damage.

February 12.—Supervising inspector, second district, rendered decision in case of appeal of J. H. Smith, pilot of ferryboat *Somerville*, exonerating him from all blame in the collision between steamers *Somerville* and *Orange* on December 7, 1907. License had been suspended for 15 days.

February 13.—About 9.15 a. m., derrick in tow of tug *Admiral* collided with U. S. S. *General Hancock* off Battery, New York, causing some damage to the *General Hancock.*

February 15.—About 1.15 a. m., while tugboat *Col. John F. Gaynor* was laid up for the night at Erie basin, Brooklyn, fire occurred on board, burning up after cabin and interior of engine room. Cause unknown.

February 18.—About 5.15 p. m., steamship *Manhattan* and tugboat *Zouave* had a very slight collision off Seventeenth street, East River.

February 24.—About 3 p. m., scow in tow of tug *Volunteer* collided off Atlantic basin, Brooklyn, N. Y., with tugboat *E. M. Millard*, causing slight damage.

February 27.—About 10.10 a. m., float in tow of tug *Industry* and tugboat *Anna E. Combes* had a very slight collision off pier 3, East River.

February 27.—About 4.15 p. m., while the steamer *Ocmulgee*, with general cargo, was on voyage from New York to Brunswick, Ga., vessel struck a submerged obstacle off Ocean Grove, N. J., and one blade of propeller was broken. Ship was put back to New York and a new propeller put in place, and again sailed on February 29.

February 27.—About 2.30 a. m., canal boat in tow of tug *Overbrook* and scow in tow of tugboat *John D. Dailey* collided at Elizabethport, N. J., causing the canal boat to sink shortly afterwards.

March 1.—About 10.20 a. m., ferry steamer *Republic* and the tugboat *S. O. Co. No. 2* collided in the East River off Main street, Brooklyn, N. Y., causing slight damage.

March 2.—About 7.30 a. m., during a thick fog, the ferry steamer *New York* and tugboat *John M. Worth* collided off Fulton street, East River, causing some damage to both vessels.

March 11.—About 6.40 a. m., U. S. light-house tender *Larkspur* and schooner *George E. Hagen*, in tow of tugboat *Protector*, collided off pier 6, Brooklyn, N. Y., causing some damage to the schooner, but not of a serious nature·

March 14.—A license to operate and navigate motor vessels of 15 gross tons or less was issued to Gustav Luesse, who presented certificate of naturalization of John H. Luesse, claiming to be the son of John H. Luesse. The naturalization papers were sent to the Division of Naturalization, and on April 8 the chief of the Division of Naturalization informed the supervising inspector-general that the applicant was not the son of John H. Luesse, and that his true name was Gustav Norman. On March 31 Norman was held in New York to await the action of the grand jury. On April 14 the license was obtained from Norman, who was in the Tombs Prison, and revoked same date.

March 14.—While tug *Charles E. Soper* was lying at Quay street, Brooklyn, N. Y., a fire started from some unknown cause, causing damage to the pilot house and hold before extinguished. Damage, about $2,000.

March 23.—About 6 p. m., ferry steamer *Gowanus* and the schooner *Amanda Bishop* had a very slight collision off Erie Basin, Brooklyn, N. Y., causing very slight damage. The weather was foggy at the time.

March 23.—About 2 p. m., while tugboat *Edward Annan* was in Spuyten Duyvil Creek, N. Y., fire was discovered in the starboard coal bunker. Water was thrown on fire with fire hose and buckets, but fire gained such headway that the steamer was beached on the shore just north of the bridge. The lifeboat was launched and the full crew of 5 men were landed safely. The steamer *Hustler* then went alongside and put out the fire and towed tug to dry dock at Brooklyn, N. Y. Inspectors were detailed to examine the vessel, and the necessary repairs were ordered to hull and boiler and completed.

March 29.—About 8.40 a. m., ferry steamers *Passaic* and *Somerville* collided off Fourteenth street, North River, causing slight damage. There was a thick fog at the time, and both vessels were proceeding under 1 bell and blowing fog whistles. Both vessels had stopped and had just started ahead when the collision occurred.

March 29.—About 7.10 a. m., ferry steamers *Passaic* and *Bergen* had a very slight collision in the North River, about off Fourteenth street, Hoboken, N. J., causing slight damage to the *Bergen*, but none to the *Passaic*. There was a thick fog at the time, and both steamers were proceeding slowly, blowing fog signals.

March 31.—The ferry steamer *Union* made fast for the night at Catherine street, East River, about 9.15 p. m., with fires on the bars, doors open, damper closed, and 27 pounds steam. The crew went ashore. About 10 p. m., the pilot and engineer discovered the steamer was on fire and the engineer made an attempt to get below at the pumps, but was prevented by the flames. The fire was put out by the city fire department. Cause of fire unknown. No one injured. Damage, $16,000.

April 2.—About 11.20 p. m., the freight steamer *Armitage Brearley*, while lying at her wharf at foot of Canal street, New York, caught fire. Damage, about $3,000. Cause of fire unknown. The steamer was made fast for the night; fires banked. Steamer was repaired.

April 2.—About 6 p. m., the British steamship *Dunkeld*, temporarily disabled and in charge of tug *Leader*, while anchored in the East River off Rivington street, came into collision with the ferry steamer *Maine*. No damage to the steamship, but some damage to the ferryboat.

April 3.—Ferry steamer *Annex 4*, while laid up at the Pennsylvania Railroad shops, was damaged by fire. Cause of fire unknown.

April 4.—About 1.50 p. m., the Italian steamship *Brasile* was going down the North River, and when south of the Central Railroad ferry slip she passed the tugboat *Madison*, with barge in tow, and the suction of the ship drew the barge against the side of the steamer, causing some damage to the barge.

April 4.—About 5.55 a. m., tugboat *John Arbuckle* had just left the Erie Railroad dock, Jersey City, with 2 floats in tow, when William Loreson, floatman on float *No. 9*, fell overboard and drowned. The tug let go the floats and backed, but when about 50 feet from him he sank.

April 8.—About 10.45 p. m., ferry steamer *Oswego* and the tugboat *Roselle* collided off Forty-fifth street, North River, causing very slight damage to the tug and slight damage to the rudder of the ferry steamer. There was a fog at the time, and both vessels had been sounding the fog signal. Investigated and case dismissed.

April 8.—About 1.10 p. m., car float in tow of tug *Corning* and canal boat in tow of tug *New York Central No. 10* collided off pier 10, North River, causing some damage to the canal boat, but none to the car float.

April 8.—Supervising inspector, second district, rendered decision in case of appeal of John W. Baulsir, pilot of ferryboat *Baltic*, exonerating him from all blame in matter of collision between steamers *Baltic* and *Providence* on December 10, 1907. License had been suspended for 30 days.

April 11.—About 12.25 p. m., a scow in tow of tugboat *Express* and tugboat *S. R. Callaway* had a very slight collision off Gowanus Basin, Brooklyn, N. Y. There was a gale at the time.

April 11.—About 7.30 p. m., towing steamers *New York Central No. 22* and *Wm. E. Chapman* collided off pier 1, North River, causing some damage to both vessels, but not serious. The *Wm. E. Chapman* was making a landing at the time with a derrick in tow. The wind was blowing a strong gale from the northwest, and the tide was flood.

April 16.—About 1.35 p. m., while the steamship *Monterey* was proceeding out to sea by way of the main ship channel, she collided with the Danish steamship *United States*, which was overtaking the *Monterey*. The *Monterey* put her helm hard aport, port engine was stopped and starboard engine was reversed full speed astern, but the suction of the fast-passing *United States* drew the *Monterey* into her, damaging both vessels. The *Monterey* returned to port and the necessary repairs were made.

April 17.—About 5.10 p. m., car float in tow of tugboat *Transfer No. 10* and steamer *North Star* collided in Hell Gate, East River, causing some damage to the *North Star* and slight damage to the float. There were 2 other vessels in the vicinity which hampered the movements of the *Transfer No. 10* and the *North Star*.

April 17.—About 9 a. m., freight steamer *Amackassin* and sailing sloop *William Brook* had a very slight collision off Yonkers, Hudson River.

April 23.—About 7.30 a. m., float in tow of tug *New York Central No. 8* and float in tow of tug *Baltimore* had a very slight collision off the lower end of Governors Island, New York Harbor.

April 24.—An investigation was held into the matter of an alleged violation of the 13-hour law by the tugboat *Anthracite* on April 18. Case dismissed.

April 25.—About 6.30 p. m., while the launch *Ida* was trying to make the slip near Gold street, Brooklyn, N. Y., the steering gear broke. The engine was then stopped, and the tide carried the launch downstream so that she collided with float in tow of tug *John Arbuckle*. Damage to launch, about $30.

April 25.—The American Line steamship *St. Paul* was in collision with the British cruiser *Gladiator* off Yarmouth, Isle of Wight, England. The damage sustained by the *St. Paul* necessitated her return to Southampton, England, for repairs. At the inquiries held in England the master of the *St. Paul* was exonerated from any blame.

April 26.—About 7.50 a. m., while the passenger motor vessel *Arion* was on her way from the Battery landing, New York, for the Fishing Banks, with about 35 passengers on board, a very heavy fog existing at the time, she ran against the sea wall on Governors Island, New York Harbor, doing damage to her stem. She returned to Brooklyn and landed her passengers.

April 27.—About 2 p. m., towboats *John Wise* and *Sterlington* had a very slight collision off pier 35, North River. The *Sterlington* was preparing to enter slip.

April 30.—About 3.20 p. m., tugboats *Bangor* and *Seabright* had a very slight collision off pier 10, North River.

May 4.—About 10.20 a. m., the screw ferry steamer *Syracuse* collided with ferry bridge No. 1 while making landing at Weehawken, N. J. No serious damage. The pilot when approaching Weehawken slip rang bells to slow, to stop, dead stop, and back, but in the engine room the regular engineer had allowed an engineer who worked on side-wheel boats and who wished to learn how to handle a propeller engine to handle the engine. He had stopped the engine when he received the stop bell, but when the bells to back were received instead of sending her back he reversed the engine and sent her ahead. Investigated on May 12. Decision May 18. Case dismissed.

May 8.—About 2.05 p. m., steamship *Washtenaw* stranded on the coast of New Jersey 14 miles north of Barnegat; vessel bound north. There was a dense fog at the time and soundings were taken regularly; vessel going under half speed, and preparing to anchor until fog lifted. When the sound of the surf on beach was heard, engines were reversed, but ship grounded with engines working full speed astern. Tugboats pulled on the ship but were unable to get her off. On May 11, began lightering the cargo, and at 3.50 a. m. of that date, the ship came off and afloat and proceeded to New York under her own steam. Ship went on dry dock and had necessary repairs made.

May 11.—About 1.05 a. m., car float in tow of tugboat *Transfer No. 10* and car float in tow of tug *Gladiator* had a very slight collision off Twenty-sixth street, North River. Investigated May 29. Decision June 9. Case dismissed.

May 12.—Tugboat *Admiral Farragut* was laid up for the night at Perth Amboy, N. J., and some clothes of the deck hand James Tagg were found on deck, but he was missing. The water around the vessel was dredged and his body recovered. The master of the steamer reported that the deck hand was subject to fits and it was believed that while having one he fell overboard and was drowned.

May 13.—About 4.30 a. m., while the tugboat *Tacoma* was lying at Lehigh Valley Railroad trestle, Newark Bay, N. J., getting ready to leave, the throttle valve casting of main steam pipe burst and the fireman was slightly scalded. An assistant from this office was sent to examine the valve, and the engineer of the tug was questioned about the accident and it appeared that the accident was unavoidable, having been probably caused by a water ram.

May 14.—About 6.15 p. m., canal boat in tow of tugboat *Glen Cove* and tugboat *Edmund Moran* collided off the Battery, New York, causing the canal boat to sink almost immediately. The port steering wire of the *Edmund Moran* parted, and before tug could reverse, she struck the canal boat.

May 14.—Decision rendered in case of trial of Albert W. Salles, mate, held on May 7, on charge of misbehavior in leaving the U. S. S. *Caesar* at navy-yard, New York, N. Y., on April 23, and case dismissed.

May 14.—About 8.30 a. m., while the steam canal boat *J. C. Austin,* with a canal boat in tow, was in the vicinity of Twenty-sixth street, East River, and the mouth of Newtown Creek, and about in mid-channel, the canal boat in tow hit a submerged obstacle, causing her to sink immediately.

May 22.—About 8 a. m., while steamship *Monroe* was lying at pier 26, North River, it was noticed that there was a leak from fusible plug in the back connection of the middle starboard boiler. G. Luke, third assistant engineer, and E. Wood, junior engineer, after blowing off the boiler, entered this back connection for the purpose of renewing plug. After removing plug it was found there yet remained pressure on the boiler, and when they endeavored to get out found that some unknown person in the fireroom had closed the door, thereby preventing their escape from the furnace, which resulted in their being badly burned about head and arms. They were removed to hospital and recovered. Investigated May 27 and June 10. Decision June 12. Case dismissed.

May 23.—On the 7.40 p. m. trip of the ferry steamer *Cincinnati* from Desbrosses street, New York to Jersey City, a man who was a passenger jumped to the window of the men's cabin, New York end, into the river and was drowned. The ferry steamer was stopped, backed and searched around for some time, but he was not seen.

May 23.—Decision in the trial of Joseph Tremblay, engineer of tug *Arrow*, held on May 15, on charge of misconduct, suspending his license for 20 days. Appeal made to supervising inspector, who modified suspension to 10 days.

May 23.—About 8 p. m., the steamship *H. M. Whitney*, on her way from New York to Boston, with full cargo, went aground on Wards Island, East River. The weather had been foggy, but when the vessel passed Halletts Point, the fog suddenly became very dense, and the steamer had to stop for a tow to clear. When the steamer got clear of the tow she went ahead carefully; anchor ready to let go, but vessel went aground on the southwest end of Wards Island. She backed off, but became unmanageable and grounded on Flood rock, and filled fore and aft. No one hurt. Damage, $120,000. Vessel was later floated.

May 23.—About 11.40 a. m., when off Squam, the steamship *Princess Anne* fouled a fishing schooner, name unknown. No damage to the schooner or to the steamship.

May 23.—Gas freight vessel *Jeanie* was reported to the collector of customs at New York for navigating on an expired certificate of inspection from May 17 to May 22. The assistant inspector who made the inspection was informed by the pilot that the vessel had been operated daily after certificate had expired, owing to a mistake as to the date of expiration.

May 25.—About 6 p. m. the passenger steamer *Thomas S. Brennan* and steamship *Maraval* collided off Greenville, N. J. The *Thomas S. Brennan* had left West Brighton, Staten Island, N. Y., bound to her dock, foot of East Twenty-sixth street, New York, and when off St. George the weather became hazy. When off Greenville the *Maraval* hove in sight. Whistles were exchanged, but the vessels came together, the *Maraval* cutting through the guard of the *Thomas S. Brennan* just aft of amidships. No one hurt. An investigation was held, and as a result John McCarty, master of the *Thomas S. Brennan*, was tried on charge of violation of pilot rules, and his license suspended for a period of 30 days, commencing July 7. Appeal was made to supervising inspector, second district, who modified the decision of the local inspectors and directed that license be returned to Mr. McCarty on July 10.

May 25.—At 11.36 a. m., during a dense fog, the steamship *Seminole* grounded on the beach at Point Pleasant, N. J. The steamer was on her way from Santo Domingo to New York. The vessel was assisted by the wrecking tug *Relief* and was floated at 4.25 a. m., May 26, apparently uninjured, and proceeded to New York.

May 30.—About 11.30 a. m., tugboat *Sadie E. Ellis* had a slight collision with the steam launch *Elsa* off Harrison street, Brooklyn, N. Y. Some damage to the launch, but none to the tugboat.

May 31.—About 3.30 p. m., while the steamship *St. Louis* was near Cherbourg, France, the port evaporator burst, breaking the cast-iron frame and door and spreading the copper sheets apart, it being a copper evaporator installed in 1903. The burst evaporator was landed at Southampton, England, and all pipes and connections that were damaged were renewed and connections to both port evaporators blanked off. Assistant Engineer Strickland and Oiler Byrne were slightly injured at the time of the accident. An assistant inspector was detailed to examine the steamer while at New York on June 15, and necessary recommendations made, and repairs later completed.

June 2.—About 1.30 p. m., while towing steamer *C. W. Morse*, with barges in tow, was on her way from Boston to Guttenburg, N. J., and when she got off Negro Point, East River, the stranded steamer *H. M. Whitney* was discovered lying on Flood rock. The master reports that he made every effort to keep clear of the *H. M. Whitney*, sailing as close to Halletts Point as possible, but in spite of this the barges swung toward the vessel and hit a derrick which was alongside, doing damage to 1 barge.

June 5.—About 10.45 p. m. the British steamer *Hortensius* collided with a dumper in tow of the tugboat *Robert Palmer* in the main channel, New York Harbor, doing some damage to the dumper. The tugboat was coming in from the dumping grounds.

June 5.—Investigation of complaint of James Foley, engineer, against the master of tug *Anthracite* for alleged violation of the 13-hour law on May 13, 14, and 19. Decision June 5. Case dismissed.

June 9.—About 4.15 p. m., mud scow in tow of the tugboat *William H. Taylor* collided with scows in tow of the tug *P. R. R. No. 32* off Elizabethport, N. J., damaging 2 mud scows in tow of the tug *P. R. R. No. 32*. Investigated June 30. Decision July 8. Case dismissed.

June 11.—About 5.25 p. m., ferry steamer *Long Beach* had a slight collision with barge *Canister* in tow of the U. S. tug *Powhatan* off the South Ferry, East River.

June 12.—About 3.35 p. m. the U. S. S. *Vigilant*, operated by the United States supervisor of the harbor, left the city ash scow in the North River off west New York, bound to Fletcher's dock, Thirteenth street, Hoboken, N. J., and while maneuvering at the Thirteenth street dock the bow of the *Vigilant* came in contact with the port counter of the steamship *Nueces* that was lying head-in on the south side of the Thirteenth street dock. Slight damage sustained by the *Vigilant*. The *Nueces* was also damaged.

June 13.—Thomas V. Mullen made a statement at this office during an investigation that he had acted as and had navigated as master upon the steamer *Media*, of 103 gross tons, on June 10, while only holding a license as first-class pilot of 300 gross tons. Steamers of the tonnage of the *Media* required to be in charge of a licensed master. The matter was reported to the collector of customs at New York, June 13, 1908.

June 13.—About 4.35 p. m., while the passenger steamer *Cepheus* was on her way from New York to Coney Island, and when below the Narrows, New York Harbor, a man who was a passenger jumped overboard and was drowned. The *Cepheus* hove to and lowered a lifeboat and cruised around, but did not find him. His name not known.

June 17.—About 11 p. m. car float in tow of tug *New York Central No. 17* and ferry steamer *Philadelphia* collided off Seventeenth street, North River, causing very slight damage to the ferry steamer, but none to float.

June 17.—About 10.50 p. m. passenger steamer *Newburgh* and the tugboat *Owasco* had a very slight collision off Ninety-sixth street, North River. Both steamers were proceeding downstream and just rubbed together.

June 18.—About 4.30 a. m. towboats *Aurora* and *Bern* had a very slight collision off Packer dock, Jersey City, N. J. The *Aurora* was backing out from the entrance to the Morris Canal when the accident occurred.

June 19.—Decision in the trial of Benjamin Polhemus, engineer of tug *Maria Hoffman*, on charge of endangering life on May 24, 27, 28, by violation of the 13 hour law, and his license suspended for 5 days.

June 20.—About 8.15 p. m. tugboats *John D. Dailey* and *Coleraine* had a very slight collision off Morris Canal basin, North River.

June 23.—About 7.20 p. m. tugboats *Castle Point* and *Transfer No. 1* had a slight collision off One hundred and twenty-fifth street, Harlem River. The steamers were maneuvering to enter the drawbridge when the collision occurred.

June 25.—About 4.10 p. m. the tugboat *Radnor* had a slight collision with the United States lighter *Transfer*, off Jackson street, East River.

June 26.—While tugboat *Edna B. King* was lying at Riley's dock, Jersey City, she filled and sunk. She was raised same day and put on dry dock. It was found that the accident was caused by the breaking of the condenser pipe. Damage slight.

June 27.—Shortly after the steamship *Monterey* had anchored at Progreso, First Assistant Engineer A. Mehlman, Junior Engineer Thos. J. Smith, and Fireman Phillipe Carro were scalded on feet and ankles, caused by opening ash pit door where considerable water had accumulated from a leak in furnace of the forward starboard boiler. The vessel was examined on her arrival at New York and repairs made.

June 29.—About 8.15 a. m. ferry steamer *New Jersey* and the tugboat *W. A. Forman* had a very slight collision off pier 27, North River. The tugboat had a barge in tow.

June 29.—About 9.10 a. m. steam launch *B* collided off Twenty-fourth street, East River, with the naphtha launch belonging to the steam yacht *Kismet*, doing some damage to the naphtha launch but none to the steam launch.

June 30.—Steamer *Varina* was reported to the collector of customs at New York for navigating on an expired certificate of inspection on June 26, certificate having expired on June 24.

July 2.—About 11.45 a. m., while towing steamer *Victoria* was going down the North River, and when about off pier 1, Hoboken, N. J., a rowboat which was ahead and in which there were 3 men, changed her course and rowed across the bow of the steamer. The *Victoria* was stopped and backed, but when the rowboat got close to the steamer 1 of the men in the rowboat jumped overboard and was drowned. A life-preserver was thrown to him from the *Victoria*, but he did not grasp it. Name not known.

July 3.—Decision in trial of Abram Braisted, pilot of municipal ferry steamer *Manhattan* on complaint of Lieutenant Crosley for violation of pilot rules. Case dismissed.

July 4.—At 8.30 a. m. the ferry steamer *Nassau* left New York for Thirty-ninth street, Brooklyn, and when off Governors Island ferry slip a launch was seen with 2 men on board. The launch crossed stern of the ferry steamer *Whitehall*, which was on the starboard side of the *Nassau*. The launch hauled for the bow of the *Nassau*. The *Nassau* stopped, but the launch struck her, capsizing launch and throwing 1 of the occupants overboard. The other man clung to the bow of the *Nassau* and was pulled on board. A ring buoy was thrown to the man overboard from the ferry steamer *Montauk*, and he was picked up by the steamer *Colonel Wikoff*.

July 5.—About 10 p. m., while the passenger steamer *Rosedale* was entering slip on the north side of One hundred and twenty-ninth street, and the ferry steamer *Leonia* was entering her slip at West One hundred and thirtieth street, the steamers came together, doing no damage to the ferry steamer, but causing damage to the *Rosedale* estimated at $500.

July 8.—It was reported to the collector of customs at New York that James G. Hulphers, master of the steamship *Monroe*, made report to this office, under date of July 7, that the steamer *Monroe* left New York on July 3 for Norfolk, Va., and left Norfolk on the return trip on July 6, without the first assistant engineer, who had to remain in New York to undergo an operation. The master in his report said that there were on the ship during the voyages 1 chief engineer and 2 assistant engineers, the latter holding licenses as first assistant engineers of ocean steamers, and conjointly perfectly able to perform all the requisite work.

July 10.—About 10.30 a. m. the passenger steamer *Shady Side* had a slight collision with a small launch off Twenty-sixth street, East River. The launch got directly in front of the steamer and then stopped and backed. The *Shady Side* also stopped and backed, but they came together, causing slight damage to the launch.

July 13.—About 3.10 a. m. float in tow of tugboat *Superior* collided off Grand street, East River, with a motorboat, causing the motorboat to sink. The 2 men who were in the motorboat were taken on board the float and landed at Long Island City. The motorboat had no lights. The men in the motorboat told the master of the *Superior* that their boat had broken down and they were using the white light so that they could see to make the repairs.

July 13.—About 9.06 p. m. ferry steamers *Wilkes-Barre* and *Bound Brook*, while entering their slips at Central Railroad ferry slip, Jersey City, had a slight collision.

July 17.—About 4.18 p. m., while steam yacht *Arrow* was off Forty-second street, Brooklyn, N. Y., one of the tubes, the seventh from the rear end of port drum, burst and caused the gases from the furnace to back-draft and ignite in fireroom, burning Thomas Caulford slightly and Andrew Anderson so badly that he died in the hospital on July 24. At the time of the accident there was a steam pressure of 215 pounds on the boiler, and engines running at three-quarter speed. Boiler is allowed a steam pressure of 375 pounds. The master and engineer were examined at this office regarding the accident, which seemed to have been unavoidable, and no one could be held responsible therefor.

July 17.—About 4 p. m. the steam canal boat *Puritan* and the gasoline vessel *Night Hawk* collided in Hell Gate, causing slight damage to the *Night Hawk*, but none to the *Puritan*. The *Puritan* had blown to another steamer, which passed under her stern, and the *Night Hawk* then came around the point, and the strong ebb tide swung the vessels together.

July 17.—Decision in the case of investigation into the method by which Thomas McNulty obtained license as chief engineer of ferry steamers on May 22, 1908, in that he had not the necessary actual experience. Charges proved and license revoked.

July 18.—About 1.45 p. m. schooner *Ruth B. Cobb*, in tow of tugboat *Golden Rod*, had a slight collision with schooner *George W. Truitt, jr.*, off Dupont street, Brooklyn, N. Y. The schooners were being shifted at the time. The *George W. Truitt, jr.*, was in tow of the tugboats *James Roy* and *John Lee*.

July 18.—About 3.05 p. m. the steamship *El Norte* left her pier, New York, bound for Galveston, Tex., and when about 1½ miles north by west from Fort Hamilton, N. Y., there was noticed a two-masted schooner on port bow, close-hauled on her port tack and standing directly across the course of the steamer from port to starboard. The steamer blew alarm whistles, and the schooner at once luffed up into the wind and gave every indication of coming about on her starboard tack. Very soon she began to fill away on her port tack and began falling off and again coming up with the wind. The *El Norte* stopped and backed. Just then a rowboat with several men aboard pulled away from the schooner, and very soon after the *El Norte* came in contact with the schooner, and it was then observed there was no one on the schooner to navigate her. The schooner sunk. The rowboat was hailed, and it was found that all hands from the schooner had left her and were in the rowboat. The men in the rowboat were picked up by a tugboat, all safe. The *El Norte* was examined; no damage found, and she proceeded on her way.

July 20.—About 2.20 p. m. the tugboat *McCaldin Bros.* was moored outside of another tugboat at the Battery pier, when the steamer *Asbury Park* passed, causing a heavy swell and causing both tugs to roll heavily. The fireman on the *McCaldin Bros.* was pinned to the side of the pilot house of the *McCaldin Bros.* by a fender which had caught on the guard of the tugboat alongside. The fender pushed the fireman against the side of the house, injuring him. The master of the *Asbury Park* was written to and directed to use the utmost caution in navigating in crowded waters.

July 24.—About 3.15 p. m. schooner *George Knapp*, in tow of tug *St. Patrick* and tugboat *Volunteer*, had a very slight collision off Ninety-first street, East River, causing damage to the yawl boat of the schooner, which was in tow of the schooner on a painter. No other damage.

July 28.—About 2.45 p. m. the New York City fire boat *Abram S. Hewitt* had a slight collision with car float in tow of tug *Transfer No. 11*, off Fulton street, East River.

July 28.—About 4.25 p. m. passenger steamer *Wyandotte* and steamer *Sagamore* had a very slight collision off Seventeenth street, East River. The steamers just touched.

July 29.—About 2.45 p. m. scows in tow of tug *George Hill* and car float in tow of tug *Mahanoy* collided off South Ferry, East River, causing slight damage.

August 1.—About 9.25 a. m. the jib boom of schooner *Olyf*, in tow of tug *Jessie*, pierced the house on pier 2, Hoboken, N. J. The pilot of the *Jessie* made a charge against the pilot of the ferry steamer *Ithaca* that the accident was caused by the navigation of the ferry steamer. The matter was investigated, and as a result of the testimony the pilot of the tug *Jessie* was placed on trial on charge of violation of Rules III and VIII of the pilot rules. Decision rendered August 31 without taking action against the license of the pilot of the *Jessie*, but cautioning him and reporting the violation of the pilot rules to the collector of customs at New York.

August 1.—The engineer and oiler of the tugboat *Hugh L. Bond, jr.*, were slightly scalded while working in the engine room of the steamer in New York Harbor. After the accident both men went to their homes. The injector which was in the engine room had a rubber hose attached to the overflow valve leading to the bilge. The valve was open and the fireman came in to put on injector, and when he pulled out the ram the hose swung around and the hot water scalded the engineer and oiler. An inspector was detailed from this office to examine the steamer and his report is as above.

August 2.—About 8.30 a. m. the motor boats *Stanley Howard* and *Agnes* had a slight collision off Canarsie, N. Y. Damage very slight. Investigated August 7. Decision August 18. Case dismissed.

August 3.—Decision in the investigation of complaint as to the navigation of the tugboat *Harold*, with 6 grain boats in tow, between Buffalo and New York City, via Albany, N. Y., on July 23. Case dismissed.

August 3.—Decision in the trial of Milton Burghard, operator and navigator of motor boats at Clason Point, N. Y., on charge of recklessness and endangering life. Case dismissed.

August 7.—About 2.20 p. m. the German steamer *Prinz Eitel Frederick* on her way out to sea collided with barges in tow of tug *Primrose* off First street, Hoboken, N. J., causing some damage to the barges. The tugboat was going up the North River.

August 8.—About 9.20 p. m., while steamer *Orient* was on her way from Great Neck to her pier at New York, and when abreast of Wards Island, in Hell Gate, the steam steering gear broke down. The hand gear was then tried, but it did not work, as it was jammed, caused by the chain on the steam drum being jammed. The tug *Transfer No. 21* came to her assistance, and the steamer was docked at Astoria and the passengers landed safely. The master of the steamer was tried on charges on August 21 and case dismissed same date.

August 8.—Investigation in the matter of complaint that Norman Minnerly made a false statement as to service when his license as pilot was renewed on March 19. Decision September 2. Case dismissed.

August 9.—About 11 p. m., while the tugboat *Ben* was lying at shipyard at City Island, N. Y., fire started around bulkhead between kitchen and boiler room. The crew got the fire well under control, when the city fire boat arrived and put it out. Damage to pilot house and decks about $3,500.

August 12.—About 5.45 p. m. the city fire boat *Abram S. Hewitt* collided with barge in tow of tug *J. H. Williams* off Main street, Brooklyn, N. Y., causing slight damage.

August 14.—About 12.10 p. m. the auxiliary schooner yacht *Haida* and the steam yacht *Natalie* collided off Erie basin, Brooklyn, N. Y., causing the *Natalie* to founder. All hands saved. The pilot and engineer of the *Natalie* were slightly injured. Officers of both vessels were tried on charges. Decision September 28. License of Carl G. Muller, pilot of the *Haida*, and of Sivert Reinhardt, pilot of the *Natalie*, suspended for 60 days each, commencing October 1. Appeal was made to supervising inspector, second district, who modified the decision of the local inspectors in the case of Carl G. Muller, reducing the suspension to 20 days, but sustaining the suspension of the license of Sivert Reinhardt.

August 14.—Decision in the trial of John Clark, master of the tug *Antietam*, on complaint of Lieut. F. A. Lewis, Revenue-Cutter Service, of violation of Rule V of the pilot rules on May 30. Case dismissed.

August 14.—Investigation of complaint made by Custom Inspector Peter F. Bradley of alleged racing between passenger steamers *Tolchester* and *Orient* on July 26. Decision, September 1. Case dismissed.

August 14.—About 2.45 p. m. barge in tow of tug *Rochester* and tugboat *J. H. Williams* had a very slight collision off Court street, Brooklyn, N. Y.

August 17.—Trial in the matter of complaint of J. E. Corrigan, pilot of steamer *Jessie*, against William Moran, pilot of the ferry steamer *Ithaca*. Decision, August 31. Case dismissed.

August 19.—About 10.35 p. m. ferry steamer *Buffalo* and an ice barge had a slight collision off Forty-second street, North River. The ice barge was on a hawser in tow of an unknown tugboat.

August 19.—Investigation of charge against Jacob W. Phipany, master of tug *Interboro*, for violation of the 13-hour law on July 17, 28, and 29. Decision, September 8. Case reported to the collector of customs at New York for violation of sections 4453 and 4463, Revised Statutes.

August 19.—About 5.20 p. m. steamer *Chelsea* left pier 22, East River, and when about 50 feet from pier, and under slow speed, bound for New London, Conn., met the steamer *Transfer No. 21*, with a car float on each side, coming up the river. The steamers exchanged whistles and both vessels stopped and backed, but *Chelsea* hit the car float. Damage slight.

August 19.—About 1.25 a. m. scow in tow of tugboat *Dubois* and scow in tow of tug *C. N. Kimpland* collided off Bay Ridge, New York, causing some damage to the last scow in tow of tug *C. N. Kimpland.*

August 21.—About 4.30 p. m. tugboat *W. N. Bavier* and ferry steamer *Goshen* had a slight collision off Erie Railroad ferry slip, Jersey City, N. J.

August 23.—About 4 a. m., fire was discovered on board the freight and towing steamer *Armitage Brearley*, which was tied up for the night at pier 33, North River. The steamer had been laid up with fires banked and everything all right. Damage was to woodwork around boiler and in dining room. Cause of fire unknown.

August 25.—About 10.30 a. m. passenger steamer *John Sylvester* and ferry steamer *Scranton* collided off Hoboken, N. J. Damage very slight.

August 25.—Decision in the trial of George W. Laughton, jr., engineer of steamer *Sentinel*, on charge of negligence and unskillfulness while acting as engineer on said steamer on July 29, resulting in the burning of the boilers. License revoked and a license of a lower grade issued.

August 26.—Tugboat *Eugene F. Moran* with 2 scows in tow arrived at the dumping grounds off Scotland light-ship, dumped, and proceeded back to Long Island City. When abreast of the light-ship it was found that 1 pocket of 1 scow was not dumped, and shortly afterwards a plank gave away on the scow and she filled with water and sank.

August 31.—About 8 p. m., while the passenger steamer *Cetus* was proceeding to pier 1, North River, she had a slight collision with barge *Elheurah* off Liberty street, North River.

September 1.—About 6.45 a. m. the passenger steamer *New Hampshire*, from New Bedford for New York, while drifting with the last of the ebb tide down the East River through a thick fog, came in collision with the steam yacht *Corsair*, doing considerable damage to the *New Hampshire.* The *Corsair* was at anchor and sustained slight damage. The fog cleared and the *New Hampshire* proceeded to her pier in the North River without further incident. The fog signals were sounded by both vessels.

September 1.—About 6.40 a. m. the tug *Industry* collided with the ferry steamer *Harry B. Hollins* off Fourth street, Williamsburg, doing slight damage to the tug. There was a dense fog at the time. No damage to ferry steamer.

September 1.—About 6.30 a. m. ferry steamer *Perth Amboy* collided off Tottenville, N. Y., with 1 of a tow of 5 barges anchored abreast in midstream between Tottenville and Perth Amboy. Thick fog at the time. Reported to collector of customs at New York for investigation as to the anchorage of barges outside of anchorage.

September 2.—Investigation of the alleged violation of the 13-hour law by tugboat *William Reinhart.* Decision, September 16. Case dismissed.

September 2.—About 9 a. m. steam yacht *Theresa* collided with U. S. dredge *Raritan* while anchored in the Bay Ridge channel, doing no damage to the barge but considerable damage to the yacht. There was a dense fog at the time.

September 2.—Trial of Samuel J. Loveland, operator and navigator of the motor boat *Swan*, on charge of reckless navigation and violation of pilot rules. Decision, October 22, revoking the license of Mr. Loveland. Trial and decision by New Haven board.

September 4.—About 4.05 p. m. the passenger steamer *Angler* and the sloop *Miana* had a slight collision off Nortons Point, New York Harbor. The master of the sloop made a complaint against Albert G. Foster, master, and Louis Harm, pilot of the *Angler*, and trial was held in the case on September 28 and October 1. Decision, October 15, and charge dismissed against both parties. Trial and decision by New Haven board.

September 4.—About 6.50 p. m. tugboats *Wm. E. Chapman* and *Baltimore* just touched each other at the dock at St. George, New York, causing slight damage.

September 5.—About 8.30 a. m. tugboat *Royal*, while off Throgs Neck, East River, caught fire around the boiler. The tug was beached and the crew put the fire out with buckets of water. The fire gained such headway that the pump could not be used. Tugboat was later towed to Newtown Creek to be repaired.

September 9.—Report was made to the collector of customs at New York, N. Y., that the tugboat *Interboro* had been navigated on July 28 for a period of 17 hours and 15 minutes with the same master and deck crew, and for 15 hours with the same engineer.

September 9.—On the 8.50 p. m. trip of the ferry steamer *Babylon* from Thirty-fourth street, East River, when about 3 lengths out, a male passenger jumped overboard and was drowned. The ferry steamer stopped and reversed and search was made, but his body was not found.

September 9.—Trial of John E. Jardine, mate of the passenger steamer *J. S. Warden*, on charge of intemperate habits. Complaint made by John J. Phillips, master of the steamer. Decision September 17, and license of Mr. Jardine suspended for 100 days, commencing September 21.

September 10.—About 5.38 p. m. barge in tow of tug *Jessie* and ferry steamer *Pierrepont* had a slight collision off pier 32, Brooklyn, N. Y. Slight damage to the barge. The hawser of the barge parted and caused the barge to drift onto the ferry steamer, which had stopped.

September 10.—About 1.40 p. m. tugboat *James Watt* and the ferry steamer *Baltimore* had a slight collision off Desbrosses street, North River. The accident occurred just as the ferryboat was leaving her slip and the tugboat was backing down from the adjoining pier.

September 10.—Trial of Henry D. Edwards, master of the passenger steamer *Little Silver*, on charge of violation of section 19, Rule V, rules and regulations, carrying passengers in the pilot house. Complaint made by customs inspector Slavin. Decision September 28, suspending the license of Mr. Edwards for 10 days, commencing September 30.

September 11.—One of the three-quarter inch tubes of the feed-water heater on the steam launch *Mohican* burst while vessel was in New York Harbor. No one injured.

September 11.—About 9.54 a. m., while the tugboat *Joseph H. Moran* was backing out from slip at pier 8, East River, a canal boat which she had in tow sagged against the passenger steamer *Orient*, causing very slight damage.

September 11.—Trial of George W. DeLamater, master of the tugboat *Bailey*, on charge of misbehavior and endangering life on August 19. Complaint of Charles F. Terry, of the schooner *Mattie.* Decision September 28. License of Mr. DeLamater suspended for 90 days. Appeal made to supervising inspector and he sustained the decision.

September 14.—About 9 p. m., while the tugboat *N. B. Starbuck* was tied up for the night at Long Island City, N. Y., she took fire from some unknown cause. The city fire boat *David A. Boody* arrived and put out the fire. The tug sunk, but later she was raised and repaired.

September 14.—Trial of Charles H. Hubbs, master of the passenger steamer *Elberon*, on charge of carrying women in the pilot house on August 14, violation of section 19, of Rule V, of pilot rules. Complaint of customs inspector R. T. Burpo. Decision September 28. Case dismissed.

September 14.—While steamship *Colon* was on a voyage from New York to Cristobal, Canal Zone, she encountered a hurricane when about 40 miles north of Watlings Island, causing her to lose her smokestack and 3 lifeboats, and she had 5 lifeboats damaged. About 7 p. m., after the hurricane had subsided, William Liley, second assistant engineer, Julius Olsen, carpenter, and R. Barthl, water tender, were killed by asphyxiation while changing valves to drinking-water tanks in No. 2 lower hold, caused by some gases which had generated, the nature of which not known. Vessel was reinspected on arrival at New York and necessary equipments ordered and supplied. The *Colon* is owned by the United States Government, Isthmian Canal Commission.

September 16.—While tugboat *Eugene F. Moran* was off Scotland light-ship with scow *Juno* in tow on the way to the dumping grounds, the scow listed and water poured in through the forward hatch and scow then turned over. When the list was observed, the tug went back and took the 2 men who were on the scow aboard. One of the men injured his forehead by striking it against the hatch cover and he was sent to the marine hospital. The scow was towed to Hoboken, N. J.

September 17.—About 5.05 p. m. scow in tow of the tug *McAllister Bros.* and steamship *Pathfinder* came together in the Swash Channel, New York Harbor, causing slight damage. Both vessels were proceeding out to sea. The *Pathfinder* returned to Brooklyn to have damage examined and repaired, but damage was slight and ship sailed next day.

September 18.—Trial of Charles H. Hubbs, master of the passenger steamer *Elberon*, on charge of carrying women in the pilot house in violation of section 19 of Rule V, rules and regulations, on August 29. Complaint of Customs Inspector Seeler. Decision September 28, suspending the license of Mr. Hubbs for 10 days, commencing September 30.

September 19.—About 7.10 p. m. tugboat *Bee* and the gasoline freight boat *Magnet* collided off Catherine street, East River, causing damage to the *Magnet*. The *Bee* took the *Magnet* in tow to Court street, Brooklyn, N. Y., where she sunk. The *Magnet* was raised next day and repaired. No damage to the *Bee*. Florian Romard, pilot of the *Bee*, was tried on October 2, on charge of negligence and violation of rule 2 of the pilot rules. Decision October 23, suspending the license of Mr. Romard for 20 days, commencing October 26. Trial and decision by the New Haven board. Appeal was made to the supervising inspector, second district, who revoked the decision and license was returned to Mr. Romard on October 30, 1908.

September 19.—About 5.05 p. m. tugboat *Hugh L. Bond, jr.*, had a slight collision with barge in tow of tubgoat *El Chico* at pier 22, North River. Slight damage. The *El Chico* had landed at the end of the pier and the *Hugh L. Bond, jr.*, started to back out, and hit the barge in so doing.

September 19.—About 5.10 p. m., as the barge in tow of tug *Michael J. Coffey*, and the steamer *Yale* were coming down the North River, and about off pier 40, the *Yale* in passing struck the barge a glancing blow on her starboard stern. No damage.

September 21.—During the night when the tugboat *Cornell* was lying at pier 39, North River, she filled with water and sunk. The vessel was apparently in good condition when tied up. Steamer was raised and repaired.

September 24.—About 9.30 p. m. freight and towing steamer *S. S. Wyckoff* on her way from Keyport to New York, during a dense fog, ran aground off Fort Hamilton, New York Harbor. The freight was lightered and steamer floated off at 6 p. m. of September 26. She was placed on dry dock, but very little damage found. She went off dock on September 26, and resumed her business.

September 25.—About 7.15 a. m., while the tugboat *De Vaux Powel*, with scow in tow, was entering Governors Island Gap, the steering gear of the tug became unmanageable, getting jammed around the tiller, and the tug fetched up on the island and sunk. Tug was raised and repaired.

September 25.—About 8.48 a. m., just after the ferry steamer *Queens* had cleared from her slip at St. George, a jar was felt, and it was discovered that steamer had lost her rudder. The vessel proceeded to New York and landed passengers and teams, and then went on dry dock. Upon examination it was found that rudder had broken off where it was bolted on the rudder stock; the stern frame was bent and propeller wheel damaged. It was believed that boat struck a submerged log. Steamer was examined by officers from this service. Repairs were made.

September 26.—About 9 p. m., fire broke out in the fire room of the tugboat *Stanley H. Miner*, causing damage of about $100 before being put out. Steamer was laid up for the night at the foot of Twenty-fourth street, Brooklyn, N. Y.

September 28.—About 10.57 a. m., while the passenger steamer *Sea Gate* was lying off the Battery, waiting to land alongside pier, the British steamship *Goodwin*, coming up astern, hit the *Sea Gate* a glancing blow on the port side, causing very slight damage. The *Sea Gate* was lying with her head up the East River.

September 29.—About 6.30 p. m., scow in tow of tug *Admiral* and tugboat *E. S. Atwood* collided off Cinton street, East River, causing slight damage.

September 29.—About 4.30 p. m., float in tow of tug *John Arbuckle* and scow in tow of tug *Charles A. Fox* had a slight collision off Rutgers street, East River. The vicinity was crowded with vessels at the time.

October 1.—Trial of John J. Phillips, master of the passenger steamer *J. S. Warden*, for violation of section 19, of Rule V, rules and regulations, in carrying women in the pilot house. Complaint of John E. Jardine, mate. Decision, October 22, suspending the license of Mr. Phillips for 30 days, from October 26, 1908. Appeal made to the supervising inspector, second district, who modified the suspension to 20 days. Trial and decision by the New Haven Board.

October 3.—About 4.30 p. m., while the tugboat *William Reinhart* was off Bergen light, Staten Island Sound, the cover on small boat caught fire from some unknown cause, and the covers of 11 life-preservers were burned; also some damage to the small boat. Fire was put out by the crew. Damaged life-preservers replaced by new ones, and lifeboat repaired.

October 4.—About 6.30 a. m., while steamship *Monterey* was en route from New York to Habana, and when about 40 miles north of Jupiter inlet light station fire was discovered in No. 2 hold. The master proceeded to batten down all means of ventilation and turned on steam, and kept fire under control until vessel arrived at destination, Habana, where fire was put out. After cargo was discharged a survey of the ship was held and ship was pronounced seaworthy and she returned to New York.

October 4.—About 8 a. m., as freight and towing steamer *Commodore* was lying at pier 33, Atlantic dock, Brooklyn, N. Y., having arrived there a few minutes previously, fire was discovered in a case of yarn which was under a tarpaulin. The hose was connected to pump and fire was put out by crew of vessel. Cause of fire unknown. Damage, slight.

October 6.—About 2 a. m., while the Health Officer's Department steamer *James W. Wadsworth* was moored to the pier at Quarantine, Staten Island, in charge of watchman, fire broke out in the engine room, causing some damage. Damage confined to engine room and port alleyway. Fire was extinguished by the department employees with the fire apparatus on the dock, and the city fire department assisted. Cause of fire unknown. Repairs made.

October 7.—About 10.45 p. m. the tugboat *P. R. R. No. 32* left South Amboy, N. J., with a tow of 35 boats in 8 tiers. A fog set in soon after, and the steamer continued so as to get to suitable anchorage, but when off Sea Breeze Point the fifth tier fouled an obstruction buoy.

October 7.—About 6.10 p. m., ferry steamer *Annex* and the tugboat *Thomas Tracy* had a slight collision off Desbrosses street, North River. Slight damage.

October 8.—About 6.40 p. m., steamship *Richmond* collided with a barge in tow of the tug *Sarah E. Easton*, off Fourteenth street, North River, causing some damage to the steamship, but none to the barge. The steamship went on dry dock for repairs.

October 8.—About 5.30 a. m., tugboat *New York Central No. 22* collided with the Newark meadows *Dredge No. 5*, in the Passaic River, causing some damage to both vessels. The weather was foggy at the time. The dredge was anchored on the edge of the channel.

October 11.—At 3.18 a. m., when the steamship *St. Paul* was entering the Empress dock at Southampton, England, previous to docking, a strong ebb tide, running across the entrance of the dock, carried the *St. Paul* down and fouled the British troopship *Rewa*, doing slight damage to both vessels. The necessary repairs to the *St. Paul* were completed before departure from Southampton.

October 13.—About 4.30 a. m., while tugboat *Bernardsville* with barge in tow was on her way to Greenpoint, N. Y., and when off Stanton street, East River, she struck a submerged object, causing the tug to roll, knocking a hole in the barge, causing her to leak badly. After the accident it was discovered that the obstruction was a ballast scow floating bottom up, but was about awash and not discernible in the darkness. This scow was afterwards picked up by tugs and towed to dry dock.

October 13.—About 2.30 p. m., while gasoline passenger vessel *Arion* was on her way from Seabright, N. J., to New York, the rudderstock broke. Temporary repairs made, and vessel proceeded to Gravesend Bay, where she landed passengers. Next day vessel was towed to dry dock and rudder repaired.

October 16.—About 10.50 a. m., float in tow of the tugboat *Montauk* and tugboat *Henriette* had a very slight collision off Jackson street, East River, just denting the guard iron of the *Henriette*. The accident was due to the steering gear of the *Henriette* getting out of order.

October 16.—About 5.45 p. m. tugboat *W. H. Flannery* and the passenger steamer *New York* collided off Twenty-fifth street, North River, causing insignificant damage. The *New York* was going down the river and the tugboat was bound up. The master of the *W. H. Flannery* was put on trial, as the police department reported that he was under the influence of liquor at the time of the accident. Decision November 2. Case dismissed.

October 20.—About 7 a. m. tugboats *C. F. Roe* and *Robert A. Scott* had a slight collision off pier 13, Hoboken, N. J.

October 20.—On the 4.30 a. m. trip of the ferry steamer *Passaic* from Jersey City to New York, and just as she had about cleared her slip, the body of the cast-iron throttle valve broke off at the edge of fillet next to the flange connecting this valve to the steam chest of the engine. The escaping steam severely scalded Levi Wilson, oiler. The injured man was removed to St. Francis Hospital, Jersey City, where he died at 8 a. m., same day. No one else injured. Damage, about $2,000.

October 26.—About 4 a. m., while steamship *S. V. Luckenbach* was on her way from New York to San Juan, Porto Rico, fire was discovered in No. 2, lower hold. Fire alarm was given and fire pumps started hose lines about No. 2 hatch, which crew opened, but were obliged to close up and turn on steam. The steam held the fire in check and smothered it down until vessel arrived at San Juan. After the passengers were landed at San Juan, holes were broken through main deck, water turned on, and fire put out. Fire appeared to have started among bags of sugar. There were 31 passengers on board. No one injured. When fire started, the vessel was about 500 miles from New York. Cause of fire unknown. Vessel was examined on her arrival at New York and necessary repairs ordered and completed.

October 28.—James Pawson navigated the tugboat *S. O. Co. No. 19*, on New York Lower Bay, passed Scotland light-ship, which was beyond the limits of his license, which authorized him to only act as master of steam vessels on waters of bays, sounds, and rivers on steamers of 600 gross tons, and pilot of same on New York Harbor above the Narrows; to Yonkers, East and Harlem rivers, Staten Island Sound, and Passaic River to Newark. There was no other licensed officer on board to cover the route. Reported to the collector of customs at New York for violation of provisions of section 4438, Revised Statutes, which, as this board understands it, imposes a fine on the master and also on the owner.

October 28.—About 11 a. m. float in tow of tugboat *Transfer No. 12* and float in tow of tug *Eleanor Bush* collided off Greenville, N. J., causing slight damage.

October 30.—About 11 a. m. tugboats *James A. Garfield* and *Henry S. Beard* just came together in Gowanus Creek, Brooklyn, causing damage of about $100. Steamers were getting alongside of scows.

October 31.—About 10.20 a. m. ferry steamer *Public Service* and the sand schooner *Amelia Furman* just sagged together off Bergen Point, N. J. Damage, about $10.

October 31.—About 3.15 p. m., while the tugboat *Henriette* was in the Passaic River, at the Plank Road Bridge, the launch *Margaret* collided with the *Henriette*, causing the launch to sink in less than a minute after the accident. There were 4 persons aboard the launch and all got safely on board the *Henriette*. The *Henriette* towed the launch ashore and landed the people from the launch on the bridge. No damage to the tugboat. Investigated by the New Haven board November 19. Decision November 25. Case dismissed.

November 3.—About 11 a. m. lighter in tow of tug *W. A. Furman* and car float in tow of tug *Nanuet* just came together off Eleventh street, Hoboken, N. J., causing slight damage to the lighter. The *W. A. Furman* had just cleared from her slip.

November 3.—Trial of Walter J. Rose, master of tugboat *Cornelia*, on charge of misbehavior and endangering life on November 3 by interfering with sailing boat *Cricket*. Decision December 4. Case dismissed. Investigation held by New Haven board.

November 3.—About 6 p. m. the tugboat *Henry L. Wait* left Whitestone, N. Y., and when off Whitestone Point fire was discovered in the galley. The crew attached the hose to the steam pump and made all effort to put out the fire, but it gained rapidly and the tug was run ashore at College Point, where the crew were taken off by a naphtha launch. Cause of fire unknown. Investigated by New Haven board November 14. Decision November 21. Case dismissed.

November 3.—About 8.10 a. m., a few minutes after the motorboat *Mergus* had left Canarsie Landing, bound out to the fishing waters, the motorboat *Trio* was observed about 100 feet ahead in the breakwater drain. The *Mergus* followed her, running about half speed. The engine of the *Trio* stopped and the operator of the *Mergus* tried to avoid hitting the *Trio*, but was unable to clear, and the *Mergus* struck the *Trio* a glancing blow which grazed the launch's stern. The *Trio* careened over to port. Six of the people on the *Trio* caught hold of the bowsprit of the *Mergus* and were hauled on board that vessel. Two other passengers (men) jumped overboard. One of them had a life-preserver on, and he was picked up by a rowboat. The other man sunk. The *Trio* was boarded by a man from a rowboat; engine started and the launch brought alongside the *Mergus* and the survivors put on board. The *Mergus* went aground, but shortly afterwards was pulled off by a tugboat, and proceeded on her way to the fishing ground. The damage to the *Trio* was just a scratch. Investigation was held in the matter of this collision on November 12, 19, and 20, 1908, and as a result of such investigation charges were preferred against Frank Hammer, jr., operator and navigator of the motorboat *Mergus* for "recklessness in navigation," and trial held on

November 28. Decision was rendered on December 8, revoking the license of Frank Hammer, jr., as operator and navigator of motor vessels of 15 gross tons or less carrying passengers for hire. Investigation and trial held by the New Haven board. Appeal was made to supervising inspector, second district, who decided that Mr. Hammer could apply for another license any time after February 15, 1909.

November 4.—About 7 p. m. the float in tow of the tugboat *Nyack* and the tugboat *New York Central No. 18* collided off Chambers street, North River, causing damage of about $1,500 to the *New York Central No. 18*. No damage to float. The *Nyack* was coming out from the slip and the *New York Central No. 18* was coming down the river.

November 4.—About 9.30 p. m., car float in tow of tug *New York Central No. 19* and canal boat in tow of tug *R. G. Townsend* just sagged together off Thirtieth street, North River.

November 5.—About 4.45 p. m., the steamship *H. M. Whitney* drifted ashore on the eastern end of Ward's Island, East River. The steamer left pier 45, North River, New York, at 3.51 p. m., bound east. In turning Hallets Point, East River, she came upon a towboat with 4 barges going eastward. The *H. M. Whitney* blew signals to the tug, but received no reply. The steamship stopped her engines, but drifted faster than the tow was going. The steamship then started ahead, hoping to be able to pass the tow, but the tide being strong, it carried the steamer over too close to shore and she struck on the starboard side aft. Water poured in and filled the engine room and put out the fires. The ship afterwards drifted on the eastern end of Wards Island, where she now lies, bow and stern under water. Investigated by New Haven Board November 10. Decision November 14. Case dismissed.

November 6.—About 5.16 p. m., canal boat in tow of tug *Overbrook* collided with the ferry steamer *Arthur Kill* at Hollis Hook, Staten Island, N. Y. The ferry steamer was entering her slip and the strong tide set the canal boat over against her. Damage to the canal boat about $50. Damage to ferry boat very slight.

November 6.—About 4 a. m., while tugboat *Agnes* was proceeding through Rikers Island Channel, East River, and when about 200 feet off the red light marking spindle on southerly end of South Brother Island she struck an unmarked reef, causing damage to the tugboat estimated at $200. The tug had used the channel several times before without accident, and hitting the reef on this occasion is explained by an unusually low tide caused by high westerly winds previous to date of accident.

November 7.—About 10.30 p. m., while tugboat *Director* was laid up at the foot of Quay street, Breenpoint, Brooklyn, N. Y., she caught fire from some unknown cause. Damage about $1,500. No one injured.

November 8.—About 6.15 a. m., barge in tow of tug *New Rochelle* and car float in tow of tug *Transfer No. 16* collided about off Eighty-eighth street, East River, causing some damage to the barge, but none to the car float. No one injured.

November 9.—About 11.15 a. m., float in tow of tugboat *Morristown* and tugboat *Anna E. Combes* collided off the Catharine ferry, East River, causing considerable damage to the *Anna E. Combes*. This matter was investigated, and as a result, the masters of both steamers were placed on trial on November 28. Decision, December 14, suspended the license of George Hammond, master of the *Morristown*, for 10 days, and dismissed the charge against A. G. Cook, master of the *Anna E. Combes*. Investigation and trial held by the New Haven board.

November 10.—About 3 p. m., while tugboat *Robert Palmer* was returning from the dumping grounds with an empty dumper, and when off Rockaway Shoals, Rigo Gindone, one of the men on the dumper, in tow, fell overboard from the after deck and was drowned. The captain of the dumper signaled to the tug, and the tug rounded to as quickly as possible, but before the tug got to the man in the water, he disappeared. A life ring had been thrown to him from the dumper. The tug waited in the vicinity for some time, but he was not seen.

November 10.—About 1.15 a. m., steamship *Zulia* entering New York Harbor, with pilot on board, and in a thick fog, grounded off Fort Hamilton. Vessel floated at 5 p. m. same day. Engines were going slow speed ahead when ship grounded. Ship was placed on dry dock. No damage to hull. No one injured.

November 11.—About 8 a. m., while steamship *J. M. Guffey* was lying at Erie basin, Brooklyn, N. Y., 3 men from a dry dock company were employed disconnecting a suction pipe from an asphaltum pump in after pump room, and using open lamps, were burned on the hands and face by a blaze which started as soon as the pipe was disconnected. The men were sent to a hospital and recovered. There was no explosion, and no damage done to the vessel or machinery.

November 12.—About 8.20 a. m., barge in tow of tug *S. O. Co. No. 10*, and tugboat *Morgan* collided off Seventh street, East River, causing slight damage. No one hurt. Investigated by New Haven board, November 23 and December 15. Decision December 19. Case dismissed.

November 16.—About 2.35 p. m., ferry steamer *Minnahanonck* and steamer *City of Stamford* collided off Blackwells Island, East River, causing damage to the ferry steamer of about $1,000. Very little damage to the *City of Stamford*. *The Minnahanonck* was rounding to, to make landing at Work-House dock, Blackwells Island, and the *City of Stamford* was bound east. There was also a tug with 3 barges abreast close by. Both steamers reversed engines. The *City of Stamford* hit the *Minnahanonck* on her starboard side forward of paddle box. No one hurt.

November 17.—About 3.30 p. m., while the tugboat *Mutual* was getting a line to the steamship *Afghanistan*, off Liberty Island, New York Harbor, she had a slight collision with the steam launch *Natalie*. Damage slight, as the blow was a glancing one. Both steamers were bound in.

November 17.—Trial of John W. Ullberg, late chief engineer of steamer *Jacob Luckenbach*, on charge of misbehavior while acting under his license in allowing an unlicensed man to act as "engineer in charge of a watch," contrary to the requirements of section 4438, Revised Statutes. Decision December 14. Case dismissed. Investigated by New Haven board.

November 18.—While the tugboat *Nabby C.* was towing the schooner *Mary E. Olys* to South Amboy, N. J., the schooner collided with the Arthur Kill bridge, near Elizabeth, causing slight damage. The cause of the accident was due to the bridge being not fully opened. No one hurt.

November 22.—About 8.09 a. m., the American Mail Steamship Company's steamship *Admiral Dewey* and the side-wheel fishing steamer *Mount Desert* collided near the bell buoy on the West Bank, New York Harbor, during a dense fog. The *Admiral Dewey* was coming in, and the *Mount Desert* was going out. Both steamers were moving slowly and sounding fog signals. The *Admiral Dewey* had engines reversed and the *Mount Desert* was stopped when the accident occurred. The stem of the *Admiral Dewey* struck the starboard paddle box of the *Mount Desert*, and the master of the *Admiral Dewey* kept the bow of his steamer in the gap, going ahead slowly until it was discovered that the *Mount Desert* was making no water; she then backed out. Some of the passengers from the *Mount Desert* went over on the forward deck of the *Admiral Dewey*. The *Mount Desert* returned and landed her passengers at Fifty-seventh street, Brooklyn, N. Y. The *Admiral Dewey* took bottom and did not get off until about 4 p. m., same day, when she proceeded to her pier. No lives lost. No serious damage to the vessels.

November 22.—About 2.30 a. m., while steam yacht *Preble* was lying at Harvel's shipyard, Astoria, N. Y., fire started in the engine room, and before it was put out by the city fire boat *Zophar Mills* caused damage to the furniture and inside of the vessel of about $2,500. Cause of fire unknown. The master was on board asleep when the fire occurred.

November 23.—About 5.20 p. m., during a dense fog, the ferry steamer *Nassau*, while keeping clear of a tow, struck bottom near black buoy, Buttermilk Channel, New York Harbor. The steamer was proceeding slowly. No apparent damage to hull or propellers.

November 23.—About 10.40 a. m., during a dense fog, while the ferry steamer *Edgewater* was preparing to enter her slip at One hundred and thirtieth street, North River, she collided with a barge lying at the end of the pier at One hundred and thirty-first street, causing very slight damage to the barge. No damage to the ferry steamer. No one hurt.

November 23.—About 9.30 a. m., during a dense fog, the freight steamer *Mohawk* and the barge in tow of tug *Waltham* had a slight collision off Tenth street, East River. The *Mohawk* was at anchor and the *Waltham* was going very slowly. Damage very slight. No one hurt.

November 23.—About 8.45 a. m., during a dense fog, the ferry steamer *Passaic* collided with barge in tow of the tug *Dictator* off Hoboken, North River. Very slight damage to the barge and none to the ferry steamer.

November 23.—About 8 a. m., during a dense fog, the ferry steamer *Annex 5*, on her way from Brooklyn, N. Y., to Jersey City, N. J., hit the end of pier 1, North River, causing damage to the *Annex 5* of about $350. The damage was repaired. No one hurt.

November 24.—About 12 m., during a thick fog, the freight steamer *Pequonnock* and the passenger steamer *Naugatuck*, while rounding Halletts Point, East River, had a slight collision. The damage was very slight and the steamers proceeded on their way, both going east.

November 24.—During a thick fog, while the tugboat *Charles H. Senff*, with 2 floats in tow, 1 on each side, was in the East River, off North Sixth street, going slowly and sounding fog signals, the fog signal of an approaching steamer was heard. The *Charles H. Senff* stopped, and the approaching vessel, an unknown steamship, just touched the bows of the floats, causing very slight damage.

November 24.—About 4.50 p. m., during a dense fog, the ferryboat *Whitehall* and U. S. Government tugboat *Engineer* collided off pier 4, East River. The *Whitehall* was preparing to enter her slip, and had stopped to let another vessel go by; then started ahead, but sided up against the *Engineer*, which was lying alongside of a barge made fast to the end of pier 4, East River.

November 24.—About 8.15 a. m., during a dense fog, the ferry steamers *Wilkes-Barre* and *Scandinavia* had a slight collision off pier 2, Hoboken, N. J. The port side of the *Wilkes-Barre* came in contact with the starboard side of the *Scandinavia*.

November 24.—About 3.40 p. m., tugboats *Wilson P. Foss* and *Transfer No. 1*, had a slight collision off pier A, North River. There was a dense fog at the time.

November 25.—During a dense fog, the passenger steamer *Marlborough*, while proceeding up the North River, and when off Spuyten Duyvil, had a very slight collision with schooner *Bertha*. They just touched one another very slightly, the steamer's headway being almost stopped at the time of the collision.

November 26.—About 7.40 a. m., steamer *Finance* and British steamer *Georgic* collided in the main ship channel, New York Harbor. On November 23, the steamship *Finance* left her pier at New York, bound out, but owing to dense fog was obliged to anchor several times, last occasion off Southwest spit, where she remained Wednesday night. On Thursday, November 26, as the fog seemed lighter, the anchor was hove up and the vessel proceeded with engines "dead slow" to go out of the main ship channel, keeping on the starboard side of the channel. As she proceeded, the fog signals of a steamer nearly ahead were heard and answered, and engines of the *Finance* stopped. The whistles sounded nearer, and the master of the *Finance* rang for "full speed astern" just as the steamship *Georgic* came out of the fog on the port bow. The *Georgic* struck the *Finance* just abaft the engine room. Lifeboats were lowered from the *Finance* and from the *Georgic* and the passengers and crew of the *Finance* were taken on board the *Georgic*. The *Finance* sunk in a few minutes after the accident. Three passengers and the third assistant engineer from the *Finance* were lost. The *Georgic* was bound in. Investigated November 30. Decision December 10. Case dismissed.

November 27.—Trial of Frank Drake, former second assistant engineer of the steamer *S. V. Luckenbach* on charge of intemperance and misconduct. Charges preferre by chief engineer Fred L. Worke. Decision December 11, suspending the license of Frank Drake for 30 days, commencing December 17. Trial held by New Haven board.

November 28.—About 11.50 p. m., scow in tow of tug *McAllister Bros.* and barge in tow of tug *P. R. R. No. 32*, collided off Elizabethport, N. J. The damage was very slight.

November 28.—About 5.04 p. m., tugboat *Transfer No. 10* collided with the ferry steamer *Irene Elaine Davis* off Whitehall street, New York, causing some damage to the *Irene Elaine Davis*, but not of serious nature. The *Irene Elaine Davis* was on her way from Governors Island to her landing at the Battery, New York, and the *Transfer No. 10* was coming in.

November 28.—About 12 o'clock midnight, while tugboat *Dictator* was lying at bridge in Newtown Creek, Brooklyn, N. Y., fire broke out and did damage of about $1,000 before being extinguished by the city fire boats. Cause of fire unknown.

November 29.—About 2.45 p. m., tugboats *Transfer No. 1* and *Patrick McGuirl* collided off pier 4, East River, causing serious damage to the latter vessel. The *Patrick McGuirl* kept going ahead after the accident and went into slip between piers 4 and 5, East River, where she sunk alongside a barge. No lives lost. Investigated and Anders J. Johnson, master of the *Transfer No. 1*, placed on trial on charge of negligence. Decision, December 12, suspending the license of Mr. Johnson for 30 days, commencing December 14.

December 1.—About 1.30 p. m., car float in tow of tug *Transfer No. 6*, and coal boat in tow of tug *Three Brothers* had a slight collision off One hundred and twenty-second street, Harlem River, New York.

December 2.—About 2 p. m., loaded coal boat *Rye*, in tow of tug *Anthracite*, hit a rock while entering the new channel that leads to Casino beach gas house dock, at Lawrences Point, East River, causing her to leak and sink.

December 3.—About 12.15 p. m. ferry steamer *Ohio* and the tugboat *East Chester* collided off Delancy street, East River, causing damage to the pilot house and rail of the tug *East Chester*.

December 4.—While the towing steamer *James W. Husted* was lying at Port Reading coal dock she sprang a leak and sunk.

December 4.—About 7.20 a. m. tugboats *Buffalo* and *Waverly* had a very slight collision off pier 36, North River.

December 5.—About 3 a. m. while tugboat *Wioma* was lying at the Market street gas works dock, Newark, N. J., she filled with water and sunk. Tug was raised next day and it was discovered that the sea cock had been left open, which caused vessel to leak and sink. She was towed to Perth Amboy, N. J., and as no damage was found on examination she went into commission.

December 5.—About 9.40 a. m., while tugboat *Bouker No. 2*, with dump scows in tow bound to the dumping grounds, was turning Bell bouy of Middle the steamship *Fortuna* of Bergen, Norway, hit one of the scows, causing some damage to the scow.

December 7.—About 7.30 p. m., while coal boat *Virginia E.* was in tow of tug *Coleraine*, and when off Erie basin, Brooklyn, N. Y., the wind suddenly increased in violence and the *Virginia E.* sunk.

December 8.—About 4 p. m., ferry steamer *Maryland* collided off pier A, North River, with the tugboat *Anthracite*, causing the tugboat to sink and the drowning of 2 of the crew: Edward Garvan, engineer, and Edward Hallenbeck, cook. There were 5 more men on board the *Anthracite*, but they were picked up by tugboats and landed safely at pier A. The *Maryland* was on her way from Harlem River station to Pennsylvania railroad station at Jersey City with the Colonial Express on board, and the *Anthracite* was preparing to make a landing at pier 1, North River. Investigated. Masters of both vessels will be tried.

December 8.—Henry Ackerly navigated the tugboat *S. O. Co. No. 17* on the waters to Wilson Point, Long Island Sound, which was beyond the limits of his license, which authorized him to only act as master on steam vessels on waters of bays, sounds, and rivers on steamers of 500 gross tons, and pilot of same on New York Harbor above the Narrows to Yonkers and Hallets Point. There was no other licensed officer on board to cover the route. Investigated December 9 and reported to collector of customs at New York on December 12 for violation of the provisions of section 4438, Revised Statutes.

December 8.—Steamship *Californian* reported to the collector of customs at New York for navigating on an expired certificate of inspection; steamer having left Charleston, S. C., on November 28, her last certificate of inspection having expired on November 27. Steamer was inspected at New York on December 8.

December 11.—About 9.20 a. m. tugboats *Genesta* and *Brandon* collided off Twenty-first street, North River, causing slight damage.

December 11.—About 5 p. m. car float in tow of the tugboat *Madison* and the tugboat *Hugh L. Bond, jr.* had a very slight collision off pier 14, North River. Just fouled each other.

December 12.—About 6 p. m. car float in tow of tug *New York Central No. 20* collided off Fifty-ninth street, North River, with car float in tow of tug *Henry U. Palmer*, causing very little damage.

December 15.—The license as operator and navigator of motor vessels of 15 gross tons or less carrying passengers for hire, issued to Joseph J. Wilson on December 3, was revoked on December 15, on account of the failure of Mr. Wilson to produce evidence of citizenship, and the license was forwarded to the department at Washington on December 15.

December 15.—About 5.05 a. m. car float in tow of tugboat *New York Central No. 9* and ferry steamer *Clinton* had a slight collision off Fulton street, East River. Damage very slight.

December 16.—About 10.25 a. m. ferry steamer *Whitehall* and tugboat *Johnstown* collided off pier 32, Brooklyn, N. Y., causing damage to the ferry steamer of about $200. No damage to the tugboat.

December 16.—About 4.05 p. m. ferry steamer *Pierrepont* and tugboat *Pencoyd* collided off Whitehall street, East River, causing damage to the ferry boat of about $500. No damage to the *Pencoyd*. The locality at the time was crowded with vessels.

December 16.—About 2.30 p. m. tugboats *Evelyn* and *Summit* had a very slight collision at the entrance to Newtown Creek, Greenpoint, N. Y.

December 16.—About 5.40 p. m. ferry steamer *Scandinavian* and tugboat *C. C. Clarke* collided off pier 20, North River, causing slight damage.

December 17.—While the steamship *St. Paul* was on westbound voyage the port forward high-pressure cylinder cracked. The engineer blanked the cylinder off and worked engines successfully without that cylinder.

December 17.—About 5.25 p. m. ferry steamer *Steinway* and freight steamer *Marion* collided off Astoria, East River. When the collision occurred, the *Steinway* was forced against the side of a barge lying at the bulkhead at Astoria, and the damage sustained by the *Steinway* was on the port side where she struck against the barge. The *Marion* also came in contact with the bulkhead where the barge was lying and sustained some damage. Damage to the vessels slight. Three of the crew of the *Marion* were slightly hurt. Investigation held by New Haven board, and as a result the master of the *Steinway* was placed on trial and his license suspended for a period of 60 days, commencing January 21, 1909.

December 18.—About 11.55 a. m. ferry steamers *Wilkes-Barre* and *Annex* collided off pier B, Jersey City, North River, causing slight damage. There was a fog at the time and both steamers were sounding fog signals.

December 18.—An investigation was held in the matter of incomplete and defective equipment found on steamer *Vigilancia* at a reinspection on December 16. Decision December 28. Case dismissed with a caution to the licensed officers.

December 18.—About 10.20 a. m. tugboats *T. L. Sturtevant* and *Transfer No. 1* had a very slight collision off pier 38, East River. Damage very slight.

December 18.—About 11.55 a. m. tugboats *Packerton* and *John Arbuckle* had a very slight collision while entering slip between piers 35 and 36, North River. The *Packerton* was going into the slip and the *John Arbuckle* was coming out. The weather was foggy at the time.

December 19.—About 10.10 a. m., canal boat *O'Brien Bros.* in tow of tugboat *Bath* collided with ferry steamer *Chicago* off Cortlandt street, North River, causing considerable damage to the canal boat, which was later towed to dry dock. No damage to the ferryboat.

December 23.—Passenger steamer *Chester W. Chapin* left pier 40, North River, at 5.19 p. m., on her trip to New London, Conn., and while proceeding up the East River, encountered the tug *F. Woodruff* with tow coming out of the piers below Fulton Ferry, Brooklyn, and at the same time there were 2 other tows a little on her starboard bow. A very slight collision occurred with 1 of the canal boats, causing some little damage to the canal boat.

December 28.—About 7.45 a. m., tugboat *McAllister Bros.* was made fast to a barge in Newtown Creek, opposite Blissville, and was being moved by hand as steamer had no steam, the tugboat *S. O. Co. No. 9*, with float in tow, was backing and came in contact with the *McAllister Bros.*, but caused no damage.

December 28.—About 11.30 a. m., tugboats *Hero* and *Defiance* collided off entrance to Newtown Creek, East River, causing some damage to both vessels, but not serious.

December 29.—About 6.30 a. m., ferry steamer *Philadelphia* and tugboat *Phoenix* collided off the slip of the Pennsylvania Railroad Company at Jersey City, N. J., causing damage to the *Phoenix* of about $800. Investigated and case dismissed.

December 31.—About 6.55 a. m., ferry steamer *Bay Ridge*, during a fog hit an empty oil barge that was lying at bulkhead at Atlantic basin, Brooklyn, N. Y., causing the barge to fill and sink. There was no person on the barge. After the collision the *Bay Ridge* in maneuvering to get her course to New York went aground on Governors Island, but was pulled off by tugboats in about 20 minutes. No serious damage to the ferry steamer.

December 31.—About 7.30 a. m., ferry steamer *Hamburg* and steam lighter *Daniel Wheeler* had a very slight collision off the ferry slip of the Delaware, Lackawanna and Western Railroad Co., Hoboken, N. J.

December 31.—About 5 p. m., while tugboat *George Hill* was docking barge *J. B. King & Co. No. 20* at Ravenswood, N. Y., the barge struck bottom and remained aground until 3 a. m., January 1, 1909. No apparent damage done.

December 31.—About 7.20 a. m., there was a very slight collision between ferry steamers *Atlantic* and *Manhattan*, off Atlantic avenue, Brooklyn, N. Y. There was a dense fog at the time and the tide was strong ebb.

LOCAL DISTRICT OF BOSTON, MASS

January 8.—Upon information received from the Boston custom-house, John C. Sweeney, master of schooner *Childe Harold*, was charged with obtaining his license by misrepresentation as to his place of birth on his application sworn to by him on June 19, 1899. The charge being admitted by Sweeney to be true, his license as master of sail vessels was therefore revoked.

January 16.—The tug *Florence*, while attempting to pass through the draw of the Meridian Street Bridge at East Boston, was run against the bridge, carrying away pilot house, smokestack, and light pole. The matter was investigated and the master and engineer charged with negligence in allowing the boat to be handled by unlicensed men while they were absent from their posts of duty. The charges being sustained, the license of the master was suspended for 25 days and that of the engineer 20 days.

January 27.—A rowboat in tow of tug *Juno*, which also had a foreign steamer in tow, was accidently overturned by the U. S. S. *Winnisimmet*, in coming alongside the steamer, and the man in the rowboat was drowned. Upon investigation the officers of the *Juno* were exonerated from blame. Case dismissed.

February 6.—Tug *S. O. Co. No. 7* was stranded on Nonamesett Island, Vineyard Sound, while holding on to anchored barge, which dragged till steamer's propeller struck the rocks, and she became unmanageable. No personal injury resulted. Tug subsequently raised and repaired. Amount of loss not stated.

February 13.—Tug *Dudley Pray* stranded on Rockport breakwater, Mass., in consequence of thick weather and mistake in the buoy; she became a total wreck. No loss of life or personal injury. Amount of loss about $30,000.

March 14.—Charges were preferred against Ernest L. Sprague for making a false statement in his application for license as marine engineer. On trial, he failed to appear as per notice served on him, and his case went by default. His license was revoked and all the papers in his case sent to the United States district attorney at Boston, Mass.

March 14.—Charges were preferred against John Turvanen, holding marine engineer's license, for giving Ernest L. Sprague a letter to present with his application covering more time as a fireman than he was entitled to, thereby aiding Sprague to cover up his false statement in his application. On trial, Turvanen admitted his guilt, and his license was suspended for 90 days.

March 14.—Charges were preferred against Newell F. Crowley, holding marine engineer's license, for giving Ernest L. Sprague a letter showing more time as fireman under him than he was entitled to, thereby aiding Ernest L. Sprague to cover up his false statement in his application for license. On trial, the complainant failed to sustain his charges and his case was dismissed.

April 12.—The passenger steamer *Mary* was burned and became a total loss by the great fire of this date in Chelsea, Mass. The steamer was out of commission at the time and there was no loss of life or personal injury on her. Loss about $10,000.

April 16.—A collision occurred between a barge in tow of tug *Pallas* and schooner *Teresa & Alice*, causing slight damage to schooner; none to tug. Collision investigated and master of *Pallas* found in no way to blame. Case dismissed.

April 19.—While steamship *Admiral Dewey* was on the passage from Boston to Port Antonio, a coal passer, about 26 years of age, a native of Spain, was overcome by heat in the coal bunkers and died soon after being brought on deck.

April 29.—Steamship *Katahdin* while feeling for a good place to anchor in Vineyard Sound during dense fog, struck bottom, but worked off with the rise of tide by loss of propeller. Amount of loss not stated.

May 23.—A collision occurred off Thachers Island during foggy weather, about 11.20 p. m., between the steamer *Governor Dingley* and the schooner *Arthur Clifford*, sinking the latter. A boat was lowered from the steamer and the crew of the schooner, 1 man and a boy picked up. No lives lost. Very slight damage to steamer. Loss not known. Case was investigated, but no action seemed necessary against the officers of the steamer. Case dismissed.

July 2.—While docking a vessel at Boston, the tug *Confidence* broke her crank shaft and thrust bearing. No personal injury. Amount of loss not stated.

July 7.—By accidental escape of hot water and steam from 1 of the boilers on steamer *Satellite* in Boston Harbor, a fireman was badly scalded, but he recovered. The accident is believed to have resulted from a nipple recently put into manifold, cross-threaded, by some unknown workman, thereby grinding off the threads so that it failed to hold. No blame was attached to the engineer of the steamer.

July 8.—Pleasure steamer *Dolphin*, 4 tons, was totally destroyed by fire during a great conflagration along the water front at East Boston. No personal injury. Amount of loss not stated.

July 9.—The pleasure steamer *Pilgrim*, 18 tons, caught fire while lying at her wharf at night at Thompson Island, Boston Harbor. Pilot house and part of deck house burned. Boiler and machinery apparently uninjured. Fire is thought to have originated under lagging of boiler. No personal injury. Loss, about $750.

July 12.—Tug *Neponset* took fire while tied up at her wharf at East Boston overnight. Two men were on board asleep and were aroused by a watchman on the dock. The fire is supposed to have caught in the fireroom. No personal injury. Damage estimated at $3,000.

July 19.—Tug *Richmond* was stranded during a thick fog at Sandy Point breakwater, near Rockport, Mass. Tug was bound from Maine to Boston. She was floated and pulled off next day, and came to Boston under her own steam and went into dry dock. No personal injury. Amount of damage not stated.

August 11.—A slight collision occurred between tug *Julia C. Moran* and tug *Eugene F. Moran* at entrance to Woods Hole Harbor, Vineyard Sound. About this time, George Parker, cook of the *Eugene F. Moran*, sitting on her rail, went overboard and was drowned. There was but very slight damage to the *Julia C. Moran*, and none to the *Eugene F. Moran*. The burden of keeping out of the way of the other tug seemed to be on the *Eugene F. Moran*. Her master was charged with negligence and put on trial. The charge not being sustained, and it appearing from the evidence that the man was not knocked overboard by the shock, but got overboard some other way, the master of tug *Eugene F. Moran* was exonerated from blame. Case dismissed.

August 13.—The master of steamer *Winthrop* was charged with carrying more passengers out of Boston to Nahant than her certificate allowed. The master was put on trial, and admitted the charge to be true. His license was suspended for 10 days and the papers sent to the collector of customs at Boston, Mass., through the supervising inspector, who heard his case anew and exonerated him from blame and restored his license, by reason of a misunderstanding with a customs inspector who counted the passengers on.

August 30.—A slight collision occurred in Boston Harbor between steamer *James T. Furber* and a sailing dory at anchor, nearly capsizing the latter and frightening its passengers. The master of the steamer was charged with inattention to duty, and on his trial the charge was sustained and his license suspended for 15 days.

September 6.—Steamer *Hercules*, while off Egg Rock, bound from Boston to Portland, Me., broke connecting rod of starboard engine, wrecking frame and cylinder. The accident is reported to have been caused by a flaw in the fork end of rod.

September 9.—A collision occurred in Boston Harbor between the steam yacht *My Gypsy* and the fishing schooner *Boyd & Leeds*. The schooner struck the yacht near the main rigging, wrecking her launch, carrying away awning stanchions, mast, and rigging. No personal injury resulted. Case investigated and the evidence proved the schooner ran into the yacht; and, though the yacht was in duty bound to keep clear, the fact that steamer *Cape Ann* hid the schooner from the yacht, and schooner came so suddenly out by the *Cape Ann* that the master of the yacht had not time to act with fair discretion. The case was dismissed.

September 13, 14.—The master of the steamship *Admiral Dewey* states that ship was in a hurricane in vicinity of West India Islands, bound to Boston. Main and saloon decks started so they were leaking badly, and starboard engine bedplate broken. No loss of life or personal injury reported. Amount of loss not stated. Ship went to Erie Basin, N. Y., for repairs.

October 5.—At 7.45 p. m., while going out of Boston Harbor in the Narrows, steamship *Ontario* collided with the rear barge, *Elk Garden*, of 3 coming in tow of tug *Boxer*. The ship was struck on her starboard bow while backing, as she swung across the bow of the barge, damaging her about $1,200. Case investigated and master of *Ontario* exonerated from blame and case dismissed. No personal injury.

November 24.—A collision occurred near the Graves Light at entrance to Boston Harbor at about midnight between a loaded mud scow in tow astern of tug *Minot I. Wilcox* and schooner *Hugh G.* The schooner sunk and 5 of her crew and 1 man on scow were drowned. Case investigated and master of tug exonerated from blame, and case dismissed.

December 3.—Barge *No. 101* in tow of tug *John A. Hughes* left Boston December 1, bound to Halifax, Nova Scotia. While crossing Bay of Fundy in heavy gale, barge foundered and crew of 7 men were lost. Master's report states that the sea was so high the tug could not be turned back and no assistance could be rendered.

December 3.—5.05 a. m., a collision occurred in Boston Harbor between ferry steamer *Brewster* and the fishing schooner *Georgiana*. No personal injury. Ferryboat was damaged somewhat on starboard side of cabin house. Case investigated, and it appearing that the night was dark and heavy smoke from 2 tugs near by hid the schooner from the ferryboat crew until too late to avoid a collision, the master and pilot of ferryboat were exonerated from blame and case dismissed.

LOCAL DISTRICT OF PHILADELPHIA, PA.

January 6.—Charge having been preferred by local board against Salathiel E. Matthews, operator and navigator of passenger motor vessels of 15 gross tons and under, for violation of pilot rules of inland waters, Atlantic and Pacific coasts, he having on January 6 operated motor boat *Lillie*, 10 gross tons, of Chincoteague, Va., as a passenger vessel without having on board an efficient whistle or siren, fog horn, and bell. Trial was held January 14, and decision rendered same date, suspending for a period of 15 days the operator's and navigator's license of said Salathiel E. Matthews.

January 6.—Charge having been preferred by local board against Archie Jones, operator and navigator of passenger motor vessels of 15 gross tons and under, for violation of pilot rules of inland waters, Atlantic and Pacific coasts, he having on January 6 operated motor boat *Bentley*, of Chincoteague, Va., as a passenger vessel without having on board an efficient whistle or siren, fog horn, and bell. Trial was held January 14, and decision rendered same date, suspending for a period of 15 days the operator's license of said Archie Jones.

January 7.—At or about 11.55 a. m. barges *Roanoke* and *McIlvaine*, in tow of steamer *Brandywine*, collided with the Dutch steamer *Amsteldyk* in the Delaware River, opposite Marcus Hook, Pa. *Amsteldyk* collided with tow between 2 barges. Barge *McIlvaine* had 4 or 5 planks on starboard quarter damaged, and barge *Roanoke*

February 13.—Tug *Dudley Pray* stranded on Rockport breakwater, Mass., in consequence of thick weather and mistake in the buoy; she became a total wreck. No loss of life or personal injury. Amount of loss about $30,000.

March 14.—Charges were preferred against Ernest L. Sprague for making a false statement in his application for license as marine engineer. On trial, he failed to appear as per notice served on him, and his case went by default. His license was revoked and all the papers in his case sent to the United States district attorney at Boston, Mass.

March 14.—Charges were preferred against John Turvanen, holding marine engineer's license, for giving Ernest L. Sprague a letter to present with his application covering more time as a fireman than he was entitled to, thereby aiding Sprague to cover up his false statement in his application. On trial, Turvanen admitted his guilt, and his license was suspended for 90 days.

March 14.—Charges were preferred against Newell F. Crowley, holding marine engineer's license, for giving Ernest L. Sprague a letter showing more time as fireman under him than he was entitled to, thereby aiding Ernest L. Sprague to cover up his false statement in his application for license. On trial, the complainant failed to sustain his charges and his case was dismissed.

April 12.—The passenger steamer *Mary* was burned and became a total loss by the great fire of this date in Chelsea, Mass. The steamer was out of commission at the time and there was no loss of life or personal injury on her. Loss about $10,000.

April 16.—A collision occurred between a barge in tow of tug *Pallas* and schooner *Teresa & Alice*, causing slight damage to schooner; none to tug. Collision investigated and master of *Pallas* found in no way to blame. Case dismissed.

April 19.—While steamship *Admiral Dewey* was on the passage from Boston to Port Antonio, a coal passer, about 26 years of age, a native of Spain, was overcome by heat in the coal bunkers and died soon after being brought on deck.

April 29.—Steamship *Katahdin* while feeling for a good place to anchor in Vineyard Sound during dense fog, struck bottom, but worked off with the rise of tide by loss of propeller. Amount of loss not stated.

May 23.—A collision occurred off Thachers Island during foggy weather, about 11.20 p. m., between the steamer *Governor Dingley* and the schooner *Arthur Clifford*, sinking the latter. A boat was lowered from the steamer and the crew of the schooner, 1 man and a boy picked up. No lives lost. Very slight damage to steamer. Loss not known. Case was investigated, but no action seemed necessary against the officers of the steamer. Case dismissed.

July 2.—While docking a vessel at Boston, the tug *Confidence* broke her crank shaft and thrust bearing. No personal injury. Amount of loss not stated.

July 7.—By accidental escape of hot water and steam from 1 of the boilers on steamer *Satellite* in Boston Harbor, a fireman was badly scalded, but he recovered. The accident is believed to have resulted from a nipple recently put into manifold, cross-threaded, by some unknown workman, thereby grinding off the threads so that it failed to hold. No blame was attached to the engineer of the steamer.

July 8.—Pleasure steamer *Dolphin*, 4 tons, was totally destroyed by fire during a great conflagration along the water front at East Boston. No personal injury. Amount of loss not stated.

July 9.—The pleasure steamer *Pilgrim*, 18 tons, caught fire while lying at her wharf at night at Thompson Island, Boston Harbor. Pilot house and part of deck house burned. Boiler and machinery apparently uninjured. Fire is thought to have originated under lagging of boiler. No personal injury. Loss, about $750.

July 12.—Tug *Neponset* took fire while tied up at her wharf at East Boston overnight. Two men were on board asleep and were aroused by a watchman on the dock. The fire is supposed to have caught in the fireroom. No personal injury. Damage estimated at $3,000.

July 19.—Tug *Richmond* was stranded during a thick fog at Sandy Point breakwater, near Rockport, Mass. Tug was bound from Maine to Boston. She was floated and pulled off next day, and came to Boston under her own steam and went into dry dock. No personal injury. Amount of damage not stated.

August 11.—A slight collision occurred between tug *Julia C. Moran* and tug *Eugene F. Moran* at entrance to Woods Hole Harbor, Vineyard Sound. About this time, George Parker, cook of the *Eugene F. Moran*, sitting on her rail, went overboard and was drowned. There was but very slight damage to the *Julia C. Moran*, and none to the *Eugene F. Moran*. The burden of keeping out of the way of the other tug seemed to be on the *Eugene F. Moran*. Her master was charged with negligence and put on trial. The charge not being sustained, and it appearing from the evidence that the man was not knocked overboard by the shock, but got overboard some other way, the master of tug *Eugene F. Moran* was exonerated from blame. Case dismissed.

August 13.—The master of steamer *Winthrop* was charged with carrying more passengers out of Boston to Nahant than her certificate allowed. The master was put on trial, and admitted the charge to be true. His license was suspended for 10 days and the papers sent to the collector of customs at Boston, Mass., through the supervising inspector, who heard his case anew and exonerated him from blame and restored his license, by reason of a misunderstanding with a customs inspector who counted the passengers on.

August 30.—A slight collision occurred in Boston Harbor between steamer *James T. Furber* and a sailing dory at anchor, nearly capsizing the latter and frightening its passengers. The master of the steamer was charged with inattention to duty, and on his trial the charge was sustained and his license suspended for 15 days.

September 6.—Steamer *Hercules*, while off Egg Rock, bound from Boston to Portland, Me., broke connecting rod of starboard engine, wrecking frame and cylinder. The accident is reported to have been caused by a flaw in the fork end of rod.

September 9.—A collision occurred in Boston Harbor between the steam yacht *My Gypsy* and the fishing schooner *Boyd & Leeds*. The schooner struck the yacht near the main rigging, wrecking her launch, carrying away awning stanchions, mast, and rigging. No personal injury resulted. Case investigated and the evidence proved the schooner ran into the yacht; and, though the yacht was in duty bound to keep clear, the fact that steamer *Cape Ann* hid the schooner from the yacht, and schooner came so suddenly out by the *Cape Ann* that the master of the yacht had not time to act with fair discretion. The case was dismissed.

September 13, 14.—The master of the steamship *Admiral Dewey* states that ship was in a hurricane in vicinity of West India Islands, bound to Boston. Main and saloon decks started so they were leaking badly, and starboard engine bedplate broken. No loss of life or personal injury reported. Amount of loss not stated. Ship went to Erie Basin, N. Y., for repairs.

October 5.—At 7.45 p. m., while going out of Boston Harbor in the Narrows, steamship *Ontario* collided with the rear barge, *Elk Garden*, of 3 coming in tow of tug *Boxer*. The ship was struck on her starboard bow while backing, as she swung across the bow of the barge, damaging her about $1,200. Case investigated and master of *Ontario* exonerated from blame and case dismissed. No personal injury.

November 24.—A collision occurred near the Graves Light at entrance to Boston Harbor at about midnight between a loaded mud scow in tow astern of tug *Minot I. Wilcox* and schooner *Hugh G.* The schooner sunk and 5 of her crew and 1 man on scow were drowned. Case investigated and master of tug exonerated from blame, and case dismissed.

December 3.—Barge *No. 101* in tow of tug *John A. Hughes* left Boston December 1, bound to Halifax, Nova Scotia. While crossing Bay of Fundy in heavy gale, barge foundered and crew of 7 men were lost. Master's report states that the sea was so high the tug could not be turned back and no assistance could be rendered.

December 3.—5.05 a. m., a collision occurred in Boston Harbor between ferry steamer *Brewster* and the fishing schooner *Georgiana*. No personal injury. Ferryboat was damaged somewhat on starboard side of cabin house. Case investigated, and it appearing that the night was dark and heavy smoke from 2 tugs near by hid the schooner from the ferryboat crew until too late to avoid a collision, the master and pilot of ferryboat were exonerated from blame and case dismissed.

LOCAL DISTRICT OF PHILADELPHIA, PA.

January 6.—Charge having been preferred by local board against Salathiel E. Matthews, operator and navigator of passenger motor vessels of 15 gross tons and under, for violation of pilot rules of inland waters, Atlantic and Pacific coasts, he having on January 6 operated motor boat *Lillie*, 10 gross tons, of Chincoteague, Va., as a passenger vessel without having on board an efficient whistle or siren, fog horn, and bell. Trial was held January 14, and decision rendered same date, suspending for a period of 15 days the operator's and navigator's license of said Salathiel E. Matthews.

January 6.—Charge having been preferred by local board against Archie Jones, operator and navigator of passenger motor vessels of 15 gross tons and under, for violation of pilot rules of inland waters, Atlantic and Pacific coasts, he having on January 6 operated motor boat *Bentley*, of Chincoteague, Va., as a passenger vessel without having on board an efficient whistle or siren, fog horn, and bell. Trial was held January 14, and decision rendered same date, suspending for a period of 15 days the operator's license of said Archie Jones.

January 7.—At or about 11.55 a. m. barges *Roanoke* and *McIlvaine*, in tow of steamer *Brandywine*, collided with the Dutch steamer *Amsteldyk* in the Delaware River, opposite Marcus Hook, Pa. *Amsteldyk* collided with tow between 2 barges. Barge *McIlvaine* had 4 or 5 planks on starboard quarter damaged, and barge *Roanoke* had stem smashed in, the damage to barges being estimated at $1,000. No one injured; no loss of life.

January 18.—At or about 2.35 p. m., while towing steamer *Alice*, 72 gross tons, of Baltimore, Md., was operating in the Delaware River, off Newcastle, Del., she struck some submerged obstruction, causing loss of propeller and tail end shaft, the damage amounting to $250. Vessel placed on dry dock and damage repaired.

January 20.—At or about 9.20 a. m. ferry steamer *Ocean City*, 665 gross tons, of Camden, N. J., proceeding down Delaware River, collided, off pier 55, south, with towing steamer *William Cramp*, 56 gross tons, of Philadelphia, Pa., proceeding down river. Latter vessel endeavored to cross bow of steamer *Ocean City*. *Ocean City* blew 1 whistle, which was answered by *William Cramp*, and engines were stopped on latter vessel. Pilot of *William Cramp* gave 2-bell signal, but heard only 1 sounded in engine room and vessel continued ahead. Bow of steamer *William Cramp* struck *Ocean City* about wheel box, damaging joiner work and carrying away portion of guards and twisting her own stem. Damage to *Ocean City*, $95; to *William Cramp*, $112. No one injured; no loss of life. Case investigated January 24, and decision rendered same date, finding that pilot of steamer *William Cramp* erred in relation to bell signals, but on account of his long experience as a careful pilot, case was dismissed.

January 24.—Charges were preferred by the United States local inspectors at Philadelphia against John H. Fisher and Samuel Hughes, licensed masters and pilots, and Alexander Updike, licensed chief engineer, for having signed a report relative to condition of *City Ice Boat No. 1*, of Philadelphia, Pa., which was erroneous both in substance and detail. Trials were held January 24, and decisions rendered same date, finding the accused guilty of bad conduct and misbehavior as licensed officers, and their licenses were revoked.

January 24.—At 3.20 a. m., during blinding snowstorm, heavy NNE. wind, barge *White Band*, 1,816 gross tons, of Perth Amboy, N. J., loaded with coal, in tow of towing steamer *M. E. Scully*, 272 gross tons, of Perth Amboy, N. J., parted from tug. January 25, at 10 a. m., steamer having been cruising continually for barge, discovered forward portion of her hull just awash about one-half mile W.⅜N. of Overfalls Shoals spar buoy. There were 4 men and 2 women aboard barge, who are supposed to have perished. Loss, $25,000.

January 27.—Freight steamer *Washtenaw*, 2,896 gross tons, of New York, N. Y., grounded on south end of Cherry Island flats, Delaware River. After lightering some of her cargo, ship floated January 28, and proceeded to Gibson point, Philadelphia, apparently uninjured. Vessel hauled out on dry dock, where she underwent a general overhaul. Damage, $12,156. No one injured; no loss of life.

January 30.—At or about 1.20 a. m., towing steamer *George W. Smith*, 34 gross tons, of Philadelphia, Pa., while laid up at Vine street wharf, Camden, N. J., caught fire from some unknown cause, and had house burned off. Watchman sleeping on board vessel was awakened by fire and endeavored to extinguish same, but, failing to do so, sent in an alarm, which was responded to by the Camden fire department, and fire was extinguished. Damage, $2,800. No loss of life; no one injured.

February 3.—Passenger steamer *Admiral Farragut*, 2,104 gross tons, of Perth Amboy, N. J., grounded on west bank of Duck Creek Channel, Delaware River, remaining aground only 15 minutes. Vessel was proceeding up river, and branch pilot on bridge looking after movements of vessel, mistook reflection of the high range light on the water for the low front range, causing vessel to go too far to the westward. No damage sustained by grounding. No one injured; no loss of life.

February 14.—At or about 6.45 p. m., car float No. 72, in tow of steamer *Lizzie Crawford*, 52 gross tons, of Philadelphia, Pa., collided with hinge coal barge *E. F. Glennon*, in tow of steamer *William Penn*, 48 gross tons, of Philadelphia, in the Delaware River, opposite Market street, Camden, N. J., crushing in starboard quarter of barge *Glennon* above water line, but no reported damage to car float. Weather, hazy to thick. No one injured; no loss of life. Damage to barge *E. F. Glennon*, $540. Case investigated March 24, and decision rendered March 26, preferring charges against James Hamphill, master and pilot of steamer *William Penn* for violation of Rule XV and articles 23 and 29, inland pilot rules; and also preferring charges against William H. Potter, master and pilot of steamer *Lizzie Crawford*, for violation of articles 25 and 29, inland pilot rules. March 31, trial of James Hemphill, and decision rendered April 1, finding accused guilty of violation of article 23, inland pilot rules, and suspending his master and pilot's license for 2 days. March 31, trial of William H. Potter, and decision rendered April 1, finding accused guilty of violation of articles 25 and 29, inland pilot rules, and suspending his master and pilot's license for 2 days.

February 17.—About 6.45 p. m., while steamer *Paraguay*, 2,201 gross tons, of Philadelphia, Pa., was lying at wharf, Marcus Hook, Pa., night watchman reported man overboard. Lines thrown out and boat lowered, surface of water searched without result. Body recovered in about 20 minutes by use of grappling irons. All efforts were used to restore respiration, but doctor pronounced life extinct. Body identified as that of James Blanche, a fireman on steamer *Paraguay*. *As far as can be ascertained deceased was considerably under the influence of liquor at time of accident.

February 24.—Reported to collector of customs at San Juan, P. R., Spanish passenger steamer *Manuel Calvo*, 5,139 gross tons, of Barcelona, Spain, for violation of section 4424, Revised Statutes, she having left San Juan, P. R., with 21 passengers on board without having complied with the provisions of section 4400, Revised Statutes. Collector of customs at San Juan notified us under date of February 27, that vessel had been fined $2,100, and that fine had been paid.

March 10.—At or about 1.30 a. m., while ferry steamer *Cape May*, 714 gross tons, of Camden, N. J., was off South street, Philadelphia, on trip from Camden, N. J., to Philadelphia, an unknown woman jumped overboard. Report was made to pilot by engineer of ferry steamer, boat was stopped and backed immediately, lifeboat launched and woman discovered in water, but just as deck hands in boat were about to pick her up, she sunk and was seen no more. Continued in vicinity for a half hour, but no further trace of body was discovered.

March 25.—At or about 8.15 a. m., towing steamer *Columbia*, 212 gross tons, of Baltimore, Md., when 11 miles NE. by E. from Cape Charles light-vessel, struck some submerged obstruction, breaking her stern frame. Damage estimated at $2,000. No one injured; no loss of life. Soundings in this vicinity are from 11 to 12 fathoms. This matter has been called to the attention of the United States Light-House Establishment.

March 27.—At or about 4.08 p. m., ferry steamer *Beverly*, 439 gross tons, of Camden, N. J., collided with steamer *City of Chester*, 611 gross tons, of Wilmington, Del. Ferry steamer *Beverly*, bound from Camden to Philadelphia, when nearly across river, in order to clear steamer *Burlington*, which was proceeding up river, altered her course to port, to pass under *Burlington's* stern; stopped and reversed engines. Steamer *City of Chester* was backing out of dock at this time, and owing to the *Burlington* being in such close proximity, collision was unavoidable. Concussion between vessels was light, guard of *Beverly* striking starboard rail of *City of Chester*, carrying away same for a distance of 20 feet. Damage to *City of Chester*, $63. *Beverly* received no damage. No one injured; no loss of life.

March 31.—At or about 12.15 a. m., while ferry steamer *Cape May*, 714 gross tons, of Camden, N. J., was proceeding from Camden to Philadelphia, when vessel was in the vicinity of Pine street wharf, an unknown male passenger jumped overboard. Vessel stopped and backed, and thorough search made in vicinity, but body was not recovered. The man is described as being about 40 years of age.

April 25.—At or about 7.45 p. m., barge *Mahanoy*, 855 gross tons, of Philadelphia, Pa., in tow of steamer *Valley Forge*, 558 gross tons, of Philadelphia, Pa., collided with U. S. dredge *Hell Gate* and *Scow No. 1*, made fast to same. Damage to barge *Mahanoy*, $75. *Scow No. 1* damaged to such an extent that she was leaking. Dredge *Hell Gate*, owing to jar, also sprang a leak. Damage to dredge and scow, $259. After collision, master of steamer *Valley Forge* at once returned to ascertain damage and render assistance, if needed. No one injured; no loss of life. As collision seemed unavoidable, case was not investigated.

May 1.—At or about 7.35 p. m., ferry steamer *Wenonah*, 439 gross tons, of Camden, N. J., collided with towing steamer *Lookout*, 35 gross tons, of New York, N. Y. *Wenonah* received no damage. *Lookout* had guards, rails, bulwarks, and upper work on port side damaged, and crank pin became loose in forward crank web. Amount of damage to *Lookout*, $600. No one injured; no loss of life. Case investigated May 7, and decision rendered May 9, dismissing the case.

May 6.—At or about 6.10 p. m., a car float in tow of steamer *Varuna*, 64 gross tons, of Philadelphia, Pa., proceeding from Philadelphia to Camden, collided with schooner *Abbie S.*, 53 gross tons, of Bridgeton, N. J., underway. Bowsprit and head gear of schooner carried away; amount of damage, $65. Car float uninjured. No one injured; no loss of life.

May 7.—At or about 7.45 a. m., Danish steamer *Nordkap*, 3,550 gross tons, proceeding down Delaware River, and passenger steamer *Emily*, 25 gross tons, proceeding across river from Wilmington, Del., to Carney Point, N. J., were in collision, damaging steamer *Nordkap* to extent of $2,685, and shifting boiler in steamer *Emily*, bending stem above sheer strake, and breaking braces and legs of boiler. Investigation held May 14, and decision rendered May 16, severely censuring the pilots in charge of respective vessels, L. C. Sayre of the *Nordkap* for his failure to comply strictly with the rules of the road, and J. G. Denny of the *Emily* for failure to keep proper lookout. Owing to the special circumstances of the collision, however, no further punishment was deemed necessary and case was dismissed.

May 21.—At or about 2 p. m., schooner *Marjory Brown*, 1,210 gross tons, of Perth Amboy, N. J., collided with towing steamer *Brilliant*, 81 gross tons, of Philadelphia, Pa. Damage to pilot house of tug *Brilliant*, $400. No damage to schooner. No one injured; no loss of life.

May 23.—Between 6 and 7 p. m., towing steamer *Lillie M. Graham*, 49 gross tons, of Philadelphia, Pa., while tied up for the night at Hanover Street wharf, Philadelphia, caught fire from some unknown cause, damaging upper engine room, fire room, and boiler room. Amount of damage, $1,500. No one injured; no loss of life.

May 26.—Fire of unknown origin destroyed the towing steamer *Reindeer*, 21 gross tons, of Philadelphia, Pa., while at anchor off Bordentown, N. J. Fire started in engine or boiler room. Officers and crew had turned in on previous night about 11 p. m., and did not discover blaze until about 1 a. m., when fire had made such headway that it was impossible to extinguish same. Investigation held June 2, and decision June 5, exonerating licensed officers from blame. Estimated loss, $2,500. No loss of life; no one injured.

May 26.—At or about 9.45 p. m., freight steamer *Raritan*, 166 gross tons, of Trenton, N. J., collided with sand scow *No. 8*, of the Hainesport Mining and Transportation Company, in the Delaware River opposite Penn Manor, Pa. Stem of *Raritan* collided with scow *No. 8*. Steamer sustained some damage, but proceeded to Trenton and discharged her cargo. Amount of damage to *Raritan*, $467; to scow *No. 8*, $548. No one injured; no loss of life.

May 29.—About 5.30 a. m. schooner *Independence*, 1,157 gross tons, of Bath, Me., collided with mud scow in tow of steamer *Margaret*, 203 gross tons, of Baltimore, Md. Collision occurred in the Atlantic Ocean, 3 miles southwest of Five-fathom bank light-vessel. The scow received little or no damage. From the statements of licensed officers in charge of each vessel it would appear that they were proceeding at a moderate speed, having careful regard to existing conditions and strictly conforming to the rules of the road relative to whistle signals and lookouts. No one injured; no loss of life.

May 29.—Charges having been preferred against Charles K. Niblett, a licensed operator of passenger motor vessels of 15 gross tons or less, for negligence and violation of the inland pilot rules, in having, on May 29, while operating a motor vessel in Chincoteague Bay, neglected to answer the passing signal blown to him by the steamer *Chincoteague*, en route from Franklin City to Chincoteague, Va., trial was held on June 19, and accused found guilty as charged, and license suspended for 10 days. Accused was also tried on June 19 on a charge of having, on May 29, carried 16 passengers on a motor vessel while having but 12 life-preservers on board, in violation of section 4426, Revised Statutes. Decision June 20, finding him not guilty of this charge, and charge dismissed.

May 30.—At or about 3 p. m. towing steamer *Lightning*, 48 gross tons, of Philadelphia, Pa., collided with towing steamer *Helen*, 99 gross tons, of Philadelphia, Pa., slightly damaging port rail and stanchions on latter vessel. Steamer *Helen* was lying at anchor off Thompsons point wharf, and steamer *Lightning*, with 6 light mud scows in tow, was rounding to with intention of tying up at Thompsons point. Weather being foggy, pilot of *Lightning* mistook lights on tugs and barges for lights at wharf. Corner of one of the scows struck the *Helen*, damaging *Helen* to the extent of $52. No one injured; no loss of life.

June 6.—At or about 10.30 p. m., steam yacht *Viva*, 38 gross tons, of New York, N. Y., grounded and sunk on south bar Absecon inlet, off Atlantic City, N. J. No one injured; no loss of life. Vessel a total loss.

June 12.—Steam yacht *Giralda*, 184 gross tons, of Philadelphia, Pa., collided with barge *E. I. Jenning*, in tow of steamer *Roman*, in the Delaware and Chesapeake Canal. Respective vessels were proceeding at a speed of not more than 4 miles an hour, and in passing third barge of tow, the *E. I. Jenning*, end of jib boom of steamer *Giralda* was damaged to the extent of $125. Barge uninjured. No one injured; no loss of life.

June 17.—At 4.30 a. m. towing steamer *Eugene F. Moran*, of New York, N. Y., arrived off Barnegat inlet to tow house boat (unnamed) to Sandy Hook. House boat was towed out from inlet by two motor vessels; but, on account of state of wind and weather, master of towing steamer would not put line on her and advised that she be taken back inside. Party in charge of house boat, however, insisted that she be given line and that he would take all responsibility. Line taken and towboat moved easily. Immediately boat listed to starboard and persons on board waved for towboat. Towboat returned and men came aboard in small boat. House boat turned over and house went to pieces. Tug started ahead with what was left, but it broke in two and went under when pulled. Boat was then cut adrift and tug proceeded to New York. No one injured; no loss of life.

June 18.—About 3 a. m., towing steamer *John F. Lewis* collided with Greenwich coal pier, Delaware River, damaging pier and tug to extent of $700. No one injured; no loss of life.

June 19.—At or about 2.28 p. m., steamer *Pawnee*, 1,907 gross tons, of New York, N. Y., collided with steamer *Pleasant Valley*, 400 gross tons, of Camden, N. J., at Arch street wharf, Philadelphia. Damage to steamer *Pleasant Valley*, $50. No damage reported to steamer *Pawnee*. No one injured; no loss of life.

June 21.—At or about 1.20 p. m., as steamer *Bristol*, 424 gross tons, of Camden, N. J., was making landing at wharf at Woodland Beach, Del., 1 of the passengers, a child by the name of Bachman, about 5 years old, residing at 1214 West Somerset street, Philadelphia, had one of her legs between knee and ankle seriously injured. Vessel was making landing at wharf, deck hands engaged in tending to mooring lines. Child was standing on main deck. A ballast box used for trimming vessel came adrift, said box being of such construction that it could not be moved unless someone had tampered with handle. As box moved, child's leg was caught under same. Licensed officers state vessel was under complete control when making landing and did not strike wharf heavily. Main deck watchman was at time of accident on another part of the main deck.

July 7.—On affidavit of F. Harmon, owner of steamer *Clarksville*, charges were preferred against Daniel C. Packard, chief engineer of inland steamers, that he was under the influence of liquor on July 7, while acting as engineer of steamer *Clarksville*. Trial held July 14. Accused found guilty, and license suspended for a period of 7 days. A minimum penalty was imposed as the accused in 30 years' service as an engineer has never had a complaint made against him by his employers.

July 9.—At or about 9.50 p. m., towing steamer *Rebecca*, 39 gross tons, of Philadelphia, Pa., proceeding down Delaware River with dredge and 2 lighters in tow, when just below Rancocas Creek, noticed flame and smoke coming from boiler room of dredge, and immediately gave danger signal, which was answered by dredge. Towing steamer went back to tow, took lighters from side of dredge, and put water on fire from hose. Fire on lighters easily extinguished, but nothing could be done with dredge, and crew were taken from same in small boats. Fire burnt spud fall, allowing spud to drop, thereby mooring dredge on eastern side of channel, just below Rancocas Creek. Damage, $7,000. No one injured; no loss of life.

July 12.—At or about 8.30 p. m., steamer *Admiral Schley*, 2,104 gross tons, of South Amboy, N. J., while lying at anchor in the Delaware River, opposite Gloucester, N. J., was run into by the British steamer *Queen Adelaide*, 3,832 gross tons, of Glasgow, Scotland. Both vessels were lying at anchor. During heavy squall, *Queen Adelaide* dragged her anchors and drifted into and struck the *Admiral Schley* on the starboard side aft. Latter vessel had 1 plate cracked and 1 plate dented in above water line, the damage amounting to $2,931. No one injured; no loss of life.

July 13.—While steamer *Twilight* was proceeding up Delaware River on 8 a. m. trip, starboard shaft broke. Temporary repairs made, and vessel continued on trip. Damage, $1,200.

July 14.—Charges having been preferred by the local board against John W. Cook, master and pilot, and Edward K. Whitaker, mate and pilot, of steamer *Adelaide*, for violation of section 19, Rule V, steamboat rules and regulations, in having allowed 1 man and 2 women in the pilot house while said vessel was being navigated on July 14. Trials held July 16, both parties pleading guilty to charge. The persons in the pilot house being the children of the owner of the boat, the board considered that a censure in this case would be sufficient, and the accused were warned against a recurrence of this violation.

July 22.—While towing steamer *Helen*, 28 gross tons, of Philadelphia, Pa., was proceeding up Coopers Creek and passing through the draw at Federal street, draw was closed, striking vessel and breaking house very badly. Damage, $275. No one injured; no loss of life.

July 22.—At or about 9.30 p. m., towing steamer *Hagan*, 17 gross tons, of Philadelphia, Pa., while proceeding up Delaware River, when opposite Bridesburg, Pa., during a heavy thunderstorm, was struck by a bolt of lightning. Shortly afterwards, pilot noticed flames shooting from under forward end of pilot-house floor. He notified engineer and crew to man fire buckets, and every effort was made to extinguish fire, but finding same beyond control, he ordered engines full speed ahead and steered boat for shore. Crew jumped overboard after vessel was beached. All woodwork, including house, deck, and rails, destroyed. Damage, $1,900. No one injured; no loss of life.

July 25.—About 3 a. m., passenger steamer *City of Milford*, 264 gross tons, of Milford, Del., collided with schooner *Henry D. May*, *278* gross tons, of Philadelphia, Pa., in Delaware Bay at a point 1 mile W. by S. from Cross ledge light-house. Steamer was proceeding down the bay, schooner lying at anchor. Schooner was struck on port side, 4 strakes of planking being knocked in, also part of waterway, part of rail, 3 timbers and covering board. No damage to steamer. No loss of life; no one injured. Investigation July 30 and 31; decision August 5. Board finds that collision was caused through negligence and inattention to duty on the part of William Murphy, and charges were preferred against him for failing to have a man on lookout and a man at or near the pilot house at all times and for failing to stand by after collision. Also charges preferred against pilot George Farrow for negligence and inattention to duty in failing to keep a man on lookout and a man at or near the pilot house at all times. Officers of schooner *Henry D. May* were exonerated from all blame for the collision. August 11, trial of William Murphy and George Farrow on above charges. Decision rendered August 14, suspending master's license of William Murphy for 60 days, and pilot's license of George Farrow for 8 days. William Murphy was also reported to collector of customs at Wilmington, Del., for violating act of Congress approved September 4, 1890, in not standing by the other vessel after collision.

July 25.—About 2.20 p. m., ferry steamer *Camden*, 757 gross tons, of Camden, N. J., collided with barge *Republic* in tow of steamer *Bryn Mawr*, 74 gross tons, of Philadelphia, Pa., in the Delaware River, off Market street. Damage to *Camden*, $333; to barge *Republic*, $159. No loss of life; no one injured. Ferry steamer was just leaving Philadelphia slip, *Bryn Mawr* and tow proceeding up river on port side of channel. Situation complicated by presence of ferry steamer *Beverly* and a Reading tug with barges near scene of accident. Investigation July 30. Collision found to have been caused through failure of pilot of *Bryn Mawr* to comply with Pilot Rules V, IX, and XII, and charges made accordingly. Pilots Charles H. Walton and James H. Wells, witnesses on *Camden*, charged with ignorance of the pilot rules. August 12, George W. Vent, master and pilot of *Bryn Mawr*, was tried on above charges, and decision rendered August 17, finding charges not sustained and dismissing case. August 12 and 17, Charles H. Walton and James H. Wells were tried on charges above stated, and the accused having satisfied the board that they were familiar with the pilot rules, cases against them were dismissed.

July 31.—At or about 4.30 p. m., steamer *Parthian*, 2,082 gross tons, of Baltimore, Md., while lying at pier 18, south, Philadelphia, caught on fire. Vessel immediately towed away from pier by towing steamers *Newcastle* and *Southwark*, and fire extinguished by fire-fighting apparatus on said tugs, assisted by crew of *Parthian* with its fire-fighting apparatus. Deck houses badly scorched and burned. Hull sustained no serious damage. Amount of damage, $5,600. No one injured; no loss of life.

August 2.—At 10 a. m., ferry steamer *Mauch Chunk*, 642 gross tons, of Camden, N. J., collided with ferry steamer *City of Reading*, 576 gross tons, of Camden, N. J. No one injured; no loss of life. Joiner work and rail of *Mauch Chunk* crushed in. Damage, $105. *City of Reading* uninjured.

August 5.—At or about 7.45 p. m., towing steamer *Harford*, 59 gross tons, of Philadelphia, Pa., filled and sunk in the Delaware River in the vicinity of Tullytown, Pa. Vessel raised same day. Damage, $1,200. No one injured; no loss of life.

August 8.—At or about 7.05 p. m., steamer *Carolyn*, 2,241 gross tons, of New York, N. Y., collided with the barge *A. G. Ropes*, 2,438 gross tons, of New York, N. Y. Steamer had 3 plates dented in and 4 frames bent on the superstructure, and 3 boat davits and starboard lifeboat damaged. Amount of damage, $1,675. Barge *A. G. Ropes* received but slight damage. No one injured; no loss of life.

August 12.—Steam barge *Frankie*, 119 gross tons, of Smyrna, Del., while landing alongside wharf at Reedy Island, struck a submerged object, apparently a projecting wharf log, and stove in starboard side planking amidships at water line, covering an area of about 100 square inches, causing vessel to leak. To save from sinking, vessel was put ashore. Damage, $981. No one injured; no loss of life.

August 19.—On reinspection of steamer *Lina*, 31 gross tons, of New York, N. Y., local inspectors found vessel was violating section 4421, Revised Statutes, in not having on board a certificate of inspection covering route vessel was being operated on; also section 4472, Revised Statutes, in carrying as stores highly inflammable material (metal polish); equipment and machinery showing extreme negligence and inattention to duty on part of licensed officers. Owners of vessel reported to collector of customs at Wilmington, Del., for violation of aforementioned statutes, and charges filed against licensed officers. Trial of Elmer H. Deakyne, master and pilot of steamer *Lina*, held August 20, and decision rendered August 28, finding accused guilty as charged and license suspended for 100 days. George Hummel, engineer of said steamer, failed to appear for trial on August 27, and no defense being offered, accused found guilty as charged and license revoked.

August 24.—Towing steamer *Lykens*, 625 gross tons, of Philadelphia, Pa., left Philadelphia bound for Boston, Mass., with coal-laden barges in tow. When off Barnegat, N. J., encountered strong easterly winds and heavy sea, and being unable to reach New York, put back to Delaware Bay. On arriving at anchorage, found barge *Logan* had steering gear disabled, barge *Burnside* leaking badly and steering gear disabled, and steering gear of steamer *Lykens* damaged. Proceeded to Philadelphia, arriving August

28. Tug docked, and found rudderpost broken beneath woodlock, woodlock adrift, and shoe broken. Damage, $786. No one injured; no loss of life.

August 28.—Trial held this day in the case of John Gilmore, a licensed engineer of steam vessels, who was charged by the master of steamer *Sylvan Glen* with having been intoxicated on August 17 while serving as engineer of said steamer. Accused found guilty of said charge and license suspended for 10 days.

August 29.—Towing steamer *Genl. G. Mott*, 48 gross tons, of Philadelphia, Pa., while tied up at dock in Christiana Creek, Wilmington, Del., no steam on boiler, sunk, evidently from coming in contact with some projection of the wharf when tide was rising. No one on board at time of sinking. Vessel raised and placed on dock. Damage, $650. No one injured; no loss of life.

September 2.—While steamer *Lina*, 31 gross tons, of New York, N. Y., was undergoing repairs at Delaware Breakwater, the local inspectors at Philadelphia having ordered her not to navigate as a steamer until such repairs were made, a northwest gale compelled her to get away from dock and drop to anchor. Two anchors out, but both dragged and vessel went up against pier and sunk in 8 feet of water, the sea taking all her joiner work off. Vessel not yet raised. No one injured; no loss of life.

September 3.—As passenger steamer *Springfield*, 287 gross tons, of Bordentown, N. J., was approaching Penns Manor wharf, Delaware River, in deep water, and engineer had received backing bells, which he proceeded to answer, wheel came off the shaft and caught on shoe and rudder post. Vessel towed to Philadelphia, placed on dry dock, and wheel replaced. Damage, $150. No one injured; no loss of life.

September 3.—At or about 2.30 a. m., while towing steamer *Concord*, 353 gross tons, of Fall River, Mass., was proceeding north with 3 barges in tow, when about 15 miles S. by E. of Winterquarter light-ship, in a heavy NNW. gale, the mate on watch made a white light 4 points on port bow, but saw no side lights. Light proved to be on schooner *Patrick McCabe*, 35 gross tons, of Baltimore, Md., running before gale without sail, which schooner ran or drifted into second barge of tow and then dropped alongside last barge in tow, and the master, Daniel Smith, an old colored man, and his 3 sons, the youngest about 9 years of age, comprising the crew, boarded the barge when the schooner immediately sunk. No loss of life; no one injured. No damage sustained by steamer or tow.

September 4.—At or about 7.30 a. m., ferry steamer *Peerless*, 278 gross tons, of Camden, N. J., collided with towing steamer *Brandywine*, 57 gross tons, of Philadelphia, Pa., in the Delaware River, at Philadelphia. Dense fog. Steamer *Peerless*, proceeding at moderate speed from Gloucester, N. J., to Philadelphia, Pa., when opposite Greenwich piers, heard fog signal of vessel ahead and immediately stopped engine. Steamer *Brandywine*, with barge *Reliance* in tow, proceeding at moderate speed down channel, heard fog signal on port bow and immediately stopped engine. Danger signals exchanged, engine of *Peerless* reversed, immediately after which guard on port bow of *Peerless* collided with port quarter of *Brandywine's* deck house, striking lightly and starting same from sill. Damage to *Brandywine*, $78. No damage to *Peerless*. No one injured; no loss of life.

September 5.—At or about 9.15 a. m., while passenger steamer *Brandywine*, 407 gross tons, of Wilmington, Del., was en route from Philadelphia, Pa., to Wilmington, Del., when in the vicinity of Marcus Hook, Pa., furnaces in starboard boiler collapsed, due to low water. Vessel proceeded to destination under the one remaining boiler. Damage, $3,296. No one injured; no loss of life. Case investigated October 2 and 15, and decision rendered October 19 revoking license of James M. Kelly, the engineer on watch, suspending license of William Fredericks, the regular chief engineer of vessel, for 1 year, and suspending license of Frank Brown, who was temporary chief engineer of vessel, for 90 days.

September 11.—At or about 9.30 p. m., passenger steamer *City of Chester*, 611 gross tons, of Wilmington, Del., collided with towing steamer *J. S. W. Holton*, 62 gross tons, of Philadelphia, Pa., in the vicinity of Edgemoor lower light, Delaware River. Amount of damage to *City of Chester*, $2,980. Loss to *Holton*, $11,000. *City of Chester* proceeded to Wilmington, discharged passengers and freight, hauled out on dry dock, and was examined by local inspectors. Had on board 160 passengers, but none of these or her crew were injured. Case investigated October 13 and 14, and decision rendered October 20, exonerating licensed officers of the steamer *J. S. W. Holton* from blame, and charging Daniel D. Bacon, pilot of the steamer *City of Chester*, with having violated the inland pilot rules. October 28, Daniel D. Bacon tried on said charges, and decision rendered November 5 dismissing the case, the board finding it impossible to substantiate the charge owing to the conflicting nature of all the testimony in the case.

September 13.—At or about 9.30 p. m., passenger steamer *Admiral Schley*, 2,104 gross tons, of Perth Amboy, N. J., grounded opposite Grubbs Landing, Delaware River.

At 9.35, vessel floated and found to be making no water. Proceeded to Philadelphia under her own steam. Damage, $18,565. No loss of life; no one injured.

October 7.—At or about 2.20 p. m., towing steamer *M. S. Quay*, 131 gross tons, of Philadelphia, Pa., proceeding up channel, Delaware River, under slow speed, having just prior to this time stopped in order to permit ferry steamer to cross bow, when 50 to 100 feet off pier 2, north, Philadelphia, observed motor vessel *Israella*, 13 gross tons, of Somers Point, N. J., on port bow, approaching at right angle, about 50 or 75 feet off, and immediately reversed engine full speed. Vessel too close to avoid collision, bow of *M. S. Quay* striking *Israella* on starboard quarter, breaking 3 planks above water line. Damage to *Israella*, $75. No loss of life. Mrs. C. A. Muench, a passenger on the *Israella*, was internally injured and taken to the hospital. Case investigated and decision rendered October 30, finding accident due to negligence on part of operator of *Israella*, wheel at time being in charge of a minor, an unlicensed person, and C. E. Shoemaker, the licensed operator and navigator, being in charge of the engine. Charges filed against said Shoemaker for reckless navigation, and trial held November 9, with decision same day, finding accused guilty of charge and suspending his license as operator for 15 days.

October 8.—At or about 8.30 p. m. police steamer *Visitor*, 50 gross tons, of Philadelphia, Pa., collided with scow at anchor in the Delaware River, off Mifflin street, Philadelphia, Pa., damaging the *Visitor* to the extent of $54 and doing slight damage to the scow. The scow was one of several stationed at different points in the river from which fireworks were to be displayed. The *Visitor* was responding to a call from said scow to extinguish a fire on same caused by a premature explosion of fireworks, and in attempting to get close to the scow collided with scow. No one injured; no loss of life. Case investigated October 16, and decision rendered October 23, exonerating licensed officers from blame, it being clearly shown that collision was caused by the vision of the pilot of the *Visitor* being interfered with by searchlight from battle ship *Montana* being directed into pilot house during searchlight display then in progress on the river.

October 14.—At or about 7.20 a. m. ferry steamer *Mauch Chunk*, 642 gross tons, of Camden, N. J., on trip from Camden to Philadelphia, during very heavy fog, while rounding to at mouth of Chesnut street dock, discovered small naphtha launch about 25 feet away directly across bow of ferry steamer. Ferry steamer, running under 1 bell and blowing fog signal continuously, immediately stopped and backed full speed, but was unable to avoid collision. Struck launch broadside, badly damaging her. Man aboard launch jumped overboard and was picked up by another launch. No signals heard from launch, which was without name and operated by her owner. No damage to ferry steamer. No one injured; no loss of life.

October 18.—While ferry steamer *Pennsylvania*, 430 gross tons, of Camden, N. J., was on 4 p. m. trip from Philadelphia to Camden, a man about 50 years of age, name unknown, jumped overboard and was drowned. Vessel immediately stopped and every effort made to save him, without avail. Police boat *Visitor*, which was passing at time, also made efforts to save him. Body not recovered.

October 19.—At or about 11.30 a. m., while towing steamer *Majestic*, 113 gross tons, of Philadelphia, Pa., was bound down Delaware River, with 3 loaded mud scows in tow, when in the vicinity of Marcus Hook, Pa., Dominick Wilson, of Cherso, Austria, a scowman, in attempting to cross from scow No. 1 to scow No. 2, fell between the 2 scows and was drowned. Every effort made by officers and crew of steamer to save him, but without avail.

October 26.—About 2 a. m. the steamer *Samuel Gedney*, 48 gross tons, of Camden, N. J., while tied up at the yard of the River and Harbor Improvement Company, Camden, N. J., caught fire from some unknown cause and was burned to the water's edge. Loss, $5,000. No one injured; no loss of life.

November 15.—While freight steamer *Kanawha*, 2,182 gross tons, of Port Huron, Mich., was proceeding on her trip from Norfolk, Va., to Providence, R. I., when at a point 7 miles southeast of Five-fathom bank light-ship, the chief mate of said vessel, John M. Brookins, was washed overboard and drowned. The starboard boat, manned by the second mate and 5 of ship's crew, was immediately lowered and body picked up and brought back to the vessel at 12.30 p. m. All possible means were used to revive the man (he was worked on for an hour and 20 minutes), but without success.

November 21.—Charges having been filed against W. F. P. Jacobs, master of steamer *City of Chester*, for misconduct, based on report of United States engineer's office, that said vessel was navigated on November 21, past United States dredges operating near Schooner ledge, at a speed greater than 6 miles an hour, the limit of speed permitted by regulations prescribed by the Secretary of War, trial was held December 16 and decision rendered same date, finding accused not guilty and dismissing the case.

December 9.—At or about 6 a. m. towing steamer *Lightning*, 48 gross tons, of Philadelphia, Pa., proceeding up Delaware River with 2 light scows in tow, met towing steamer *John I. Brady*, 72 gross tons, of Philadelphia, with 2 coal boats in tow, and showing red light. The *John I. Brady* blew one-whistle signal, which was answered by the *Lightning* and wheel ported. The *John I. Brady* then showed green light, and finding it impracticable to pass to port, the *Lightning* blew danger signals and reversed engine. Scow struck second boat in tow of the *John I. Brady*, doing slight damage. No one injured; no loss of life.

December 11.—At or about 2 a. m. towing steamer *Leader*, 26 gross tons, of Philadelphia, Pa., while proceeding from Chester, Pa., to Pennsville, N. J., when in the vicinity of Old Mans Creek, N. J., caught fire and was burned to water's edge. Fire said to have been caused by explosion of water-gauge lamp in fire room. Loss $4,500. No one injured; no loss of life. Officers and crew made their escape in the steamer's lifeboat. Charges having been filed against the pilot and the engineer of steamer *Leader* for neglecting to use every available means to extinguish this fire, trials were held December 17, and decision rendered December 21, suspending second-class pilot's license of Henry A. Thomer for 6 months and assistant engineer's license of Pleasy Morris for 90 days.

December 15.—Charges having been filed against Daniel Wharton, master of the passenger steamer *Chincoteague*, 143 gross tons, of Philadelphia, Pa., for having navigated said vessel on December 15 without having on board a duly licensed pilot for route on which operated, trial was held December 21, and decision rendered December 24, finding accused guilty as charged, but on account of circumstances attending violation, no penalty was imposed.

December 18.—On basis of complaint made to the honorable Secretary of the Navy by Lieut. Commander G. W. Logan, commanding U. S. S. *Scorpion*, to the effect that the steamer *Julia Luckenbach*, 3,100 gross tons, of New York, N. Y., violated the international rules for preventing collisions on October 8 when in the vicinity of Five-fathom bank light-vessel, and that through this violation a collision between said steamer *Julia Luckenbach* and the U. S. S. *Scorpion* was only averted through the prompt action of the person in charge of the *Scorpion*. On December 18 William J. Connell, master of the steamer *Julia Luckenbach*, was tried on charges of having violated the international rules for preventing collisions. December 22, decision rendered, finding the accused not guilty and dismissing the case.

December 21.—At or about 8.15 a. m., while ferry steamer *City of Reading*, 576 gross tons, of Camden, N. J., and ferry steamer *Ocean City*, 665 gross tons, of Camden, N. J., were proceeding, both slowly, from Philadelphia to Camden, in dense fog, sounding fog signals, when abreast Camden coke plant, *City of Reading* made *Ocean City* directly ahead, and immediately stopped engine and blew danger signals, but, owing to vessel's proximity, bow of *City of Reading* struck stern of *Ocean City*, cutting through the fantail guard and fracturing top plate and breaking frame of the *City of Reading*, and doing slight damage to the *Ocean City*. Amount of damage to *City of Reading*, $1,495; to *Ocean City*, $595. No one injured; no loss of life.

December 29.—Towing steamer *Clara*, 24 gross tons, of Philadelphia, Pa., sunk at her dock in Philadelphia, from an unknown cause, after having been tied up for the night. No one injured; no loss of life. Tug raised December 31. Case to be investigated.

December 31.—While ferry steamer *Peerless*, 298 gross tons, of Camden, N. J., was on her 2.30 p. m. trip from Philadelphia to Gloucester, N. J., when in the vicinity of salt works wharf, crank pin broke. Engine was immediately stopped. Loose crank came around and struck the air-pump beam and broke it; also connecting rod to crosshead broken, and pedestal cap, and hold-down bolts, and key which holds side brasses; also shaft found sitting up out of its bearing about ¾ of an inch. Engineer immediately informed master that engine was disabled, and master signaled tug *Bryn Mawr*, which vessel towed the disabled steamer to Gloucester. No one injured; no loss of life.

December 31.—About 6.30 a. m. ferry steamer *Atlantic City*, 422 gross tons, of Camden, N. J., collided with towing steamer *Ogontz*, 113 gross tons, of Philadelphia, Pa., at the dock of the latter vessel, pier 28 south, Philadelphia, Pa. Accident occurred during a dense fog. Ferryboat *Atlantic City* was bound upstream, *Ogontz* lying at her dock. Ferryboat smashed in port quarter of tug, carrying away 19 feet of rail and damaging the waist. Engines of ferryboat were stopped when she struck the tug. Deck hand on ferryboat called to back, but not in time to avoid collision. No damage to ferryboat, and no excitement on board. No one injured; no loss of life.

LOCAL DISTRICT OF NEW LONDON, CONN.

January 2.—While tugs *Aries* and *Vigilant*, with 5 and 4 loaded barges, respectively, in tow, were, on the evening of this date, proceeding eastward through The Race on parallel courses, schooner *Julia Davis*, of 80 tons, loaded with oysters, in attempting to pass between the tows, collided with barge *Valentine* in tow of *Aries*, and sunk. Crew taken off. No damage to *Valentine*. Value of schooner unknown.

January 7.—Barges *Julia* and *Helen*, light, while westbound in tow of tug *C. B. Sanford* with 4 other barges, broke adrift from the tow during a southeast blow and grounded on the south side of Fishers Island, N. Y. No lives lost or persons injured. Barges floated by wreckers.

January 24.—Steamer *Massachusetts*, westbound, touched bottom off Charlestown beach, R. I., in a north-northeast gale and blinding snowstorm. Steamer backed off unassisted and proceeded to New London. No lives lost or persons injured. Damage not serious.

January 25.—Tug *Sea King*, en route from New London to New Haven, Conn., was disabled when 1 mile west of Cornfield Point light-vessel, by the bursting of her safety valve. Caleb A. Short, chief engineer, was painfully scalded. Steamer towed back to New London. Case investigated; decision on April 24, finding accident attributable to corrosion of the cast-iron chamber or body of valve.

February 7.—Concluded investigation of loss of tug *Hercules* and barges *A. A. Sumner*, *Elk*, *Jas. E. English*, and *J. C. Wyman* in Block Island Sound, off Pleasant View, R. I., on December 14, 1907. Case dismissed.

February 15.—Barge *S. W. Pring*, coal loaded, in tow of tug *Nathan Hale*, with 5 other coal-loaded barges, parted hawser and foundered, during heavy weather, near Hortons Point, Long Island Sound. Barges *Hope* and *H. H. Conklin*, of same tow, grounded between Hatchetts reef and Saybrook, Conn., the sea being too rough to pick them up. All crews saved. Stranded barges floated by wreckers.

March 2.—Tug *Scranton*, while cautiously entering New London Harbor, grounded on a rock 11 feet below the surface of the water, bearing S. by W. from New London light. Tug floated unassisted. Damage, slight. No lives lost or persons injured. Dense fog prevailed at time of grounding.

March 4.—An unknown male passenger on steamer *Edgemont* jumped overboard and was drowned in Long Island Sound about 6 miles west of Cornfield Shoal light-vessel. Steamer was stopped, boat lowered, and search made in the vicinity. Failing to find the body, steamer continued on her passage to New York.

May 12.—Auxiliary fishing schooner *Gazelle*, while moored to a fish trap, parted her cable and grounded on the southwest end of Block Island. With the assistance of revenue cutter *Dexter*, schooner was floated and taken to New London, Conn., for repairs. No lives lost or persons injured. Estimated damage, $2,000.

June 13.—While U. S. steamer *Castle* was en route from Fort Wright, N. Y., to New London, Conn., during a dense fog on the night of this date, Private D. Ethridge, of the Eighty-eighth Company, Coast Artillery, U. S. Army, fell overboard and was drowned. Body recovered on June 26.

June 23.—Freight steamship *Chippewa*, en route from Jacksonville, Fla., to Boston, Mass., grounded during thick weather on night of this date, at a point on the south side of Long Island, 3 miles west of Montauk Point light, and punctured her bottom. Steamer floated by wreckers on August 6 and taken to New York for repairs. Estimated damage, $29,600. Case investigated, and charges of negligence preferred against Barksdale Macbeth and Clinton B. Googins, master and second officer, respectively, of *Chippewa*. Trials held on September 23. Macbeth and Googins found guilty as charged, and in the case of each officer his master and pilot license was suspended for 30 days.

June 24.—Steamship *Horatio Hall*, en route from Portland, Me., to New York, N. Y., struck a sunken obstruction off Race Rock, N. Y. Ship was stopped and examined, found to have sustained no serious injury, and proceeded to her destination. Upon examination in dry dock her propeller was found to be slightly damaged.

July 2.—Steamer *Sightseer*, in entering New London Harbor, struck a rock near Ocean Beach. She proceeded to New London unaided, was dry docked, and repaired. Estimated damage to bottom, $150. No lives lost or persons injured. Case investigated, and charges of negligence and endangering life preferred against Albert D. Nash, master of *Sightseer*. Trial held on July 25, and Mr. Nash was found guilty, as charged, and his master and pilot license was suspended for 30 days.

July 18.—Barge *Buffalo*, coal loaded, in tow of tug *Lehigh*, bound from Perth Amboy, N. J., to Providence, R. I., sprung a leak 2 miles south of Cornfield Point light-vessel at 3.30 a. m. of this date and sank. Crew was taken off by tug, which proceeded to New London with remainder of tow of 5 barges. No one injured.

July 20.—Auxiliary yacht *Alcyone*, while leaving New London Harbor, grounded on a rock near Goshen and Cormorant reefs. With the assistance of a tug, yacht was floated and returned to New London. No lives lost or persons injured.

July 22.—Steamer *Bunker Hill*, en route from New York to Boston, while running in dense fog, her lights brightly burning, and steam whistle sounding at regular intervals, collided with schooner *Rebecca W. Huddell*, 9 miles east of Little Gull Island.

Headgear of schooner and portion of rail of steamer carried away; also hole stove in steamer's waist. *Bunker Hill* towed schooner to the entrance of New London Harbor. No lives lost or persons injured. Collision attributed to steamer's inability to locate schooner in time to stop or sheer clear.

July 23.—While motor ferryboat *Prospect*, of 14 gross tons, was making trip from Greenport to Shelter Island, N. Y., on the night of this date, James Emmons, a colored employee of the Prospect House, Shelter Island, fell overboard and was drowned. Body recovered. Case investigated and dismissed on August 11.

July 24.—Steamer *Maine*, en route from New York to New Bedford, while running in a dense fog with her lights brightly burning and steam whistle sounding regular fog signals, collided with and sunk schooner *Charley Woolsey*. Schooner was abandoned by her crew, who were picked up by the steamer. No lives lost or persons injured. Steamer heard no fog signals from schooner, and first located her when schooner showed her green light about 100 feet away, when the vessels were too close together to avoid collision.

August 8.—Fred Hopper, of Shelter Island, N. Y., a licensed operator of motor vessels of 15 gross tons or less, carrying passengers for hire, was tried on charges preferred against him by George E. Ross, of Greenport, N. Y. Mr. Hopper was found guilty of intemperance and misconduct, and his license was suspended for 30 days.

August 31.—Reported to collector of customs at Sag Harbor, N. Y., and district attorney at Brooklyn, N. Y., the navigation of freight motor vessel *Ollie*, of 18 gross tons, of Sag Harbor, N. Y., E. W. Bliss Company, owners, Peter Gunning, master, during the interim between August 12, 1908, and August 28, 1908, without having on board the unexpired certificate of inspection required by section 4421, Revised Statutes. Charge of misconduct in violating section 4421, Revised Statutes, preferred against Peter Gunning, master of *Ollie*. Trial held on September 3. Mr. Gunning was found guilty as charged and his second-class pilot license suspended for 10 days.

September 15.—While passing through Fishers Island Sound, en route from New London to Block Island, an explosion of gasoline on auxiliary sloop *Robert Palmer*, of 9 gross tons, set fire to that vessel, and resulted in her becoming a total loss. Explosion believed to have been caused by leaking tank. Party of 3 persons, who were on board at time of explosion, were taken off in small boat carried by sloop. No lives lost or persons injured. Estimated amount of loss, $800.

September 26.—Steamer *Commonwealth*, en route from Fall River to New York, when passing through The Race in a dense fog, collided with and sunk the Norwegian freight steamship *Volund*, of 1,087 gross tons. No lives lost or persons injured. Case investigated. Responsibility for collision placed upon *Commonwealth*, and George H. Williamson, master of that steamer, charged with violation of Rule XV, pilot rules for the inland waters of the Atlantic and Pacific coasts. Trial held on December 3, Mr. Williamson was found guilty as charged, and his master and pilot license suspended for 90 days.

November 15.—Lawrence Hopkins, an employee on barge *Powel*, was swept overboard off Block Island, R. I., during a gale on the morning of this date, and notwithstanding efforts made to save him, he was drowned. *Powel*, in company with barge *Reading*, was at the time in tow of tug *Boxer*, of Philadelphia, bound from that port to eastern coal ports.

LOCAL DISTRICT OF ALBANY, N. Y.

March 14.—William L. Smith, licensed pilot, was tried on charge of being incompetent to hold his license because of physical disability. Decision rendered April 20, revoking his license. On appeal to supervising inspector, this decision was revoked May 25.

April 15.—Steamer *Onteora*, bound from New York, N. Y., to Troy, N. Y., collided with the tail end of the tow of tug *E. L. Levy*, sinking a light coal boat and doing slight damage to another boat. Steamer *Onteora* was not damaged and no person was injured.

May 9.—Steamer *Saratoga*, while bound from New York, N. Y., to Albany, N. Y., broke 15 arms out of port wheel. Damage was repaired and steamer is again in commission.

May 17.—Tug *James H. Scott*, while lying at the dock at Rensselaer, N. Y., was discovered to be on fire. The fire boat *George N. Southwick* and tug *Geo. Van Tuyl, jr.* answered to the alarm, and the fire was put out after causing damage estimated at $2,500.

May 29.—Steamer *Pioneer*, while lying at the dock at Watervliet, N. Y., caught fire from some unknown cause and was damaged to the amount of $950.

September 2.—Tug *Thomas Chubb* was bound from Troy, N. Y., to Albany, N. Y., light. When opposite Island Park dock the tug was discovered to be on fire. Every effort was made to put out the fire, but the vessel was reported as being totally destroyed. Value of tug, $6,500. Insurance carried, $5,000.

September 4.—Steam lighter *Bessie* stopped at Verplanck Point, N. Y., to make repairs to port engine. At about 10.30 p. m. the vessel caught fire somewhere around the fireroom. An alarm was sounded and every effort was made to put out the fire, but the intense heat drove the crew ashore and the vessel burned and sunk near the dock. Amount of loss not reported.

September 20.—A collision occurred between tug *Hercules* and ferry steamer *Fishkill-on-Hudson.* One passenger was slightly injured. Damage to *Fishkill-on-Hudson* estimated at $1,500. Case investigated September 29, and charges preferred against Melvin Hamilton, master of tug *Hercules*, for neglect of duty, and against John Hamilton, who was navigating the tug, for failure to comply with Rule VIII, pilot rules for the inland waters of the Atlantic and Pacific coasts; also for acting as pilot on waters not covered by his license. The case was tried on October 10, and the charge against John Hamilton was dismissed. During the trial of Melvin Hamilton, as agreed to by his counsel, the charge of neglect was dismissed and a charge of violation of Rule VIII of the pilot rules was preferred, the case to be decided on the testimony taken at the investigation on September 29, by agreement of counsel. After due consideration of the evidence the license of Melvin Hamilton, master and pilot of the *Hercules*, was suspended for 30 days from October 16 for failure to comply with Rule VIII of the pilot rules.

September 22.—Steamer *Mary Powell*, bound from New York, N. Y., to Rondout, N. Y., collided with a motor boat named *Bonita*, caused by bad navigation, as admitted by the party on the launch to the captain of the *Mary Powell.* The launch was slightly damaged. No person was injured. From inquiries made we ascertained that the launch was a pleasure launch, with no licensed operator on board, none being required.

October 20.—Passenger steamer *New York*, while lying at the shipyard of T. S. Marvel & Co., at Newburgh, N. Y., caught fire from some unknown cause and was totally destroyed. Four lives were lost. Loss reported, $240,000.

LOCAL DISTRICT OF PORTLAND, ME.

March 23.—Steamer *Island Belle*, while passing through Arrowsic Bridge, near Bath, Me., was caught by drift ice, jammed against pier, and stove hole in starboard bow at water line, causing bad leak. Steamer reached Bath and landed passengers and baggage safely.

April 25.—Edward Dillon, master and pilot, reported as navigating steamer *Atlas* outside of limit named in his license. Case investigated April 29. Captain Dillon's license suspended for 10 days, and steamer reported to collector of customs at Portland, Me.

June 1.—Steamer *Boothbay* hauled up at Bath, Me., sunk by guard catching on dock. No one on board. Damage to steamer and fittings, $40,000.

June 24.—Steamer *Forest Queen*, while approaching dock at Chebeague Island in dense fog, master was misled by signals on beach, which he took for dock signal, hauled in too soon and struck ledge damaging skag, sternpost, and wheel. No one lost or injured. Amount of damage, $121.

July 2.—Steamer *Sebascodegan* struck on point of Jaquish Island, Casco Bay, during dense fog. Only slight damage to keel and shoe. No one lost or injured. Amount of damage, $139.

July 18.—Steamer *Monhegan*, while docking in narrow berth at Franklin wharf, Portland, Me., in strong tide and wind, fouled steamer *Camden.* *Monhegan* had bulwarks and main rail carried away. No other damage.

August 14.—About 11.30 p. m. steamer *Pilgrim*, which had been left at her dock for the night, found on fire about stack. Only very slight damage to upper deck.

August 20.—Steamer *Emita*, when approaching landing at Peaks Island, through a misunderstanding of signals between pilot house and engine room, was not backed in season and struck dock, damaging stem above main deck. No other loss or damage.

September 14.—Ferry steamer *Hercules*, while crossing Kennebec River, at Bath, Me., broke shaft, engine frame, cylinder, and air pump. No other damage. No one injured.

September 23.—Steamer *Merryconeag*, while proceeding up Portland Harbor in very dense fog, struck end of pier, damaging stem, upper deck, and rails. No one lost or injured.

October 21.—Steamer *Wiwurna*, while on passage from Bath to Boothbay, Me., broke intermediate shaft. No other damage. Towed back to Bath and repairs made.

December 16.—Steamer *Eldorado*, left at dock at Popham Beach for the night, under banked fire, and no other fire or lights left burning, and no one on board, found soon after to be on fire, and was burned to water's edge. Loss, $9,000.

December 24.—Steamer *Merryconeag*, while proceeding down Portland Harbor in very thick vapor, fouled *J. B. King Barge No. 19*, and after clearing barge, without damage to either, collided with schooner *H. S. Boynton*, carrying away schooner's bowsprit and knightheads, and damaging steamer's stem and bulwarks. No one injured. Damage to steamer estimated at $125; to schooner, $175.

LOCAL DISTRICT OF PROVIDENCE, R. I.

1907.

December 30.—At 2 a. m., tug *C. J. Sanford* with barges *Ida* and *Jennie* encountered a southeast storm off Point Judith, R. I. Barge *Ida* foundered, and barge *Jennie* went ashore on Point Judith Beach. No lives lost. Investigation will be held to place responsibility.

1908.

February 1.—About 4.15 a.m., while steamer *Standard* with barges *S. O. Co. Nos. 57 and 6* in tow, with barge *No. 6* astern of *No. 57*, *No. 6* collided with Vineyard Sound light-vessel *No. 41*, damaging light-ship quite seriously. No material damage to barge. Harrison Godfrey, master of steamer *Standard*, was tried on April 11, May 13 and 26. Decision rendered July 15, exonerating him from all blame.

February 13.—About 9 a. m., when oyster steamer *Robert Pettis*, Henry L. Sutton, master, was off Fields Point proceeding down Providence River, the ice stove a hole between 2 timbers on water line, necessitating beaching vessel. Damages estimated at $100. No lives lost.

February 16.—While steamer *Annie R. Wood* was en route from Newport to Fort Greble, R. I., privates Benjamin G. Steenerson and John McIntosh of the United States Marine Corps, were drowned by jumping overboard. Police investigation developed McIntosh disappeared mysteriously and that Steenerson jumped overboard. Investigation held March 14, and crew of steamer were held not responsible, but the master, Fred W. Rich, was severely reprimanded.

April 8.—Paul F. Verne made application for and received license to operate and navigate motor vessels under 15 gross tons, carrying passengers for hire. Charges preferred that Verne was an assumed name. Investigated July 22 and license revoked.

May 4.—Steamer *City of Newport*, en route from Providence to Newport, R. I., when off Bullocks Point, Providence River, broke starboard shaft. Accident was unaccountable. Estimated damage, $1,500. Vessel laid up for repairs.

May 12.—While auxiliary schooner *Gazelle* was moored to trap, cable parted and vessel went ashore on southwest end of Block Island. The vessel was afterwards successfully floated. Estimated damage, $3,000.

June 27.—Steamer *Warwick* left Crawford street wharf, Providence, R. I., with excursion party of 1,000 passengers. At 9.30 a. m., off Fox Point wharf broke starboard wheel. Passengers transferred to steamer *Mount Hope*, and steamer *Warwick* towed to dry dock for repairs. No one injured. Estimated damage, about $1,500.

June 27.—At 7.30 p. m., Mrs. James H. Scholes, 102 Ring street, Providence, R. I., died aboard passenger barge *Susquehanna* from organic heart disease aggravated by hurrying to catch the barge at Newport, R. I. Body brought to Providence and turned over to relatives.

June 27.—About midnight towing steamer *Annie R. Wood*, while laid up at dock with no one aboard at Dyer street dock, Providence, R. I., got caught under slip and sunk. No one injured; no lives lost. Steamer raised. Damage estimated at $400.

July 11.—At 8.25 p. m., steamer *Warwick*, while backing away from Crawford street wharf with 464 passengers on board, backed into steamer *Mount Hope*, tied up at Dyer street wharf, striking the *Mount* Hope on port side aft of wheel, caused by some unknown passenger ringing bell leading to engine room. No one injured.

July 29.—At 2 o'clock p. m., when off Bullocks Point, Providence River, steamer *Squantum* blew out cylinder head. Passengers transferred to steamer *Baltimore* and steamer *Squantum* towed to Providence for repairs. Estimated damage, $600. No one injured.

August 11.—At 6.30 a. m., towing steamer *Annie R. Wood*, while navigating Taunton River with mud scows in tow, was discovered on fire in engine room. Steamer cut loose from tow and beached. Crew swam ashore. Vessel total loss, value $3,000. No one injured.

August 14.—About 10 p. m., towing steamer *Carlisle*, while proceeding to Clarks Point to pick up barge, lost propeller wheel. Steamer *Carlisle* was towed to Philadelphia, Pa., by tug *Monocacy* to haul out for repairs. No damage to machinery. No lives lost.

August 15.—Steam yacht *Aida*, L. H. Tillinghast, master and owner, grounded on rocks east side of drawbridge at Tiverton, R. I., about 4 p. m., owing to master not seeing sign on bridge to use other side of draw. Vessel floated in about 30 minutes after slight damage.

September 2.—About 4 p. m., while motor boat *Eleanor*, owned by George L. Wilcox, was at anchor repairing engine in Newport Harbor, she was run into and damaged by tug *Sea King* of New York. Master and owner of *Sea King* unknown. Considerable damage done to motor vessel *Eleanor*, and she was towed to Newport for repairs. Case investigated. Decision rendered December 29, and license of Harvey N. Bragdon, master of tug *Sea King*, was suspended for 5 days from January 4, 1909.

September 21.—At 7 p. m., tugs *Carrie A. Ramsay* and *Nat Sutton* with mud scow in tow collided with unknown motor boat while coming through India Point Bridge, Providence, R. I. Motor boat had no lights and was not seen in time to avoid collision. Matter reported to collector of customs at Providence. Damage to motor boat unknown.

September 28 and October 1.—Oyster steamer *Active*, B. D. Rooks, master, navigated with expired certificate of inspection. Charges will be preferred against master and engineer and matter investigated upon return of local inspector of boilers now on leave of absence.

October 2.—Steamer *M. Dewing*, R. H. Topham, master, when off Pomham light, Providence River, broke propeller shaft. Tug *Walter E. Sutton* towed her to wharf where propeller shaft is now being repaired. Damage estimated at $50.

October 11.—At 3 a. m., tug *Howell*, Ander C. Rich, master, was towing 6 mud scows up Providence River. Whem abreast of Bullocks Point light, 2 deck hands on first scow fell overboard. Rope was thrown to them and 1 was rescued; the other, Louis Hansen, made no effort to catch rope and was drowned.

LOCAL DISTRICT OF BANGOR, ME.

January 8.—During one of the heaviest gales ever known at Cutler Harbor, Maine, steamer *Massasoit* dragged anchors and went on beach at that place. She was floated on next high tide. Cost of repairs, $1,200.

February 12.—Steamer *Joshua Lovett*, on account of buoys being out of place, struck sunken obstruction in Blue Hill Bay, Maine, damaging shoe and breaking two blades of propeller. Steamer completed trip and towed a vessel from Cutler to Portland, Me., then proceeded to Boston, Mass., for repairs. Cost of repairs, approximately $500.

August 13.—On trip from Calais to Eastport, Me., in a dense fog and with unusually strong tides, steamer *Henry F. Eaton* was set out of course and struck glancing blow on bold, dry rock offshore of Deer Island, New Brunswick, breaking hole in port bow and causing a bad leak. No one appears to have been at fault. Vessel was beached on Eastport side of river, leak temporarily stopped, and next day vessel proceeded to Calais under own steam for necessary repairs. No loss of life and no one injured. Damage slight.

August 14.—Steamer *John Chester Morrison*, in attempting to get towing hawser on board of a sail vessel, in Rockland Harbor, Maine, collided with the vessel, which was caught under bow of steamer, and pilot house of steamer was damaged and auxiliary pipe broken. No blame attached to master of steamer. No loss of life and no one injured. Damage small, but amount not stated.

September 3.—Steamer *Grace Morgan*, while running in an unusual channel, in Dyers Bay, Maine, necessary to be taken in conducting business in connection with a fishing pound, struck submerged mooring buoy, breaking shaft and losing propeller. No blame attached to officer in charge. No loss of life or injury to person. Vessel towed to Rockland for repairs. Amount not given.

October 5.—While steamer *Delta* was backing out from dock at Bangor, Me., a small 8-inch boiler flue let go, throwing fire and steam back, scalding fireman, G. Warren Stover, from the effects of which he died, and also scalding engineer, George A. Arey, who, while still under medical care, will probably recover.

LOCAL DISTRICT OF NEW HAVEN, CONN.

January 10.—The oyster steamer *Gordon Rowe* was in collision with Tomlinson Bridge, New Haven, Conn., due to the closing of the bridge for some unknown reason while steamer was approaching bridge. No person injured and very little damage done.

February 10.—Steamer *John H. Starin* collided with a barge in tow of the tug *James McWilliams* while passing through a narrow channel in the ice in New Haven Harbor. No person injured and very little damage done.

February 15.—Six barges in tow of the tug *Frederick E. Ives* were lost on the breakwater at entrance to New Haven Harbor. Case was investigated. A thick fog prevailed at the time, with a heavy sea running. The accident was found to be a result of inefficient fog-signal apparatus on Sperry light, at the end of breakwater. No person injured. Estimated damage, $10,000.

February 29.—Complaint was made that the tug *Stella* was unlawfully navigated upon the waters of Hempstead Bay. Case was investigated on March 18, and Lewis F. Bloodgood was reported to the collector of customs at New York for violation of section 4438, Revised Statutes, unlawfully serving as pilot.

March 2.—The steamship *Coamo* grounded on a point 12 miles west of Fire Island light. Steamer was taken off at 6 p. m. with the aid of a towboat, and proceeded to anchorage near Sandy Hook light-ship. No person injured and no apparent damage. Case was investigated and officers exonerated from all blame for the accident.

March 13.—The steamer *Providence*, at 5.03 a. m., when near Execution light, was found to be on fire. The fire started in a pile of freight nearly amidships on the port side. The crew were called to quarters and fire extinguished. Excellent discipline was maintained, and no persons were injured. Estimated damage to steamer, $10; to freight, $2,000, mostly by water.

April 5.—The tug *Resolute* was in collision with a sharpie in Bridgeport Harbor, caused by reckless navigation of sharpie. Three of the 8 men aboard the sharpie were thrown overboard by the shock of collision and later picked up by the steamer. No lives lost and very little damage.

April 28.—Steamer *Islander* was in collision with a barge in tow of the tug *Greenwich* about one-half mile west of Execution light, causing barge to sink. Estimated loss, $500. No lives lost and no persons injured. Case investigated and officers of steamer exonerated from all blame for the accident.

May 22.—While the steam barge *L. B. Shaw* lay at anchor at Whitestone, N. Y., with barge *Sand King* alongside, a two-masted schooner, bound east, drifting with the tide, fouled the barge and had to be beached to prevent sinking. No damage to steamer or barge, no lives lost, and no persons injured.

May 21.—The steamer *John H. Starin* collided with the schooner *Calvin P. Harris* in New Haven Harbor during a dense fog, striking the schooner's jib boom, which entered the steamer's side house, forward of gangway. No lives lost and no one injured. Case was investigated and officers exonerated from all blame. Estimated damage, $2,000.

June 19.—Steamer *Golden Rod* was navigated on May 13 and 14 along the south shore of Long Island upon waters beyond the route defined in the steamer's certificate of inspection. Capt J. Harrison L'Hommedieu, pilot, and Edward L. Sheville, engineer, were tried on charges of misconduct. Charges were sustained and the officers were censured for their misconduct. The matter was also reported to the collector of customs at New York as a violation of Title LII, Revised Statutes.

June 22.—While the steamer *Edgemont* was en route from New York to Providence, at 6.50 p. m., and when near Execution light, Charles Evans, a passenger, jumped overboard and swam toward the light. A boat was lowered from steamer and the man picked up. He jumped from the boat, and the mate, Mr. Todd, went overboard after him, got him in the boat again, and brought him to the steamer. On arrival of boat at Providence he was turned over to the police.

June 11.—The freight steamer *City of Haverhill*, en route from Greenport to New York, at about 1.35 a. m., when near Captain Island, collided with an unknown steamer. No lives lost and no persons injured. Estimated damage, $800.

June 29.—The gasoline vessel *Cressite* collided with the oyster steamer *Alberta* in Norwalk Harbor, damaging the afterguard and planking. No lives lost and no person injured. Estimated damage, $20.

July 7.—Complaint made by Mr. Stephen H. Brown, owner of auxiliary yawl *Cacique* against Capt. George A. Cleveland, pilot of oyster steamer *Stratford*, charging him with unskillful navigation off Sperry Light, New Haven, Conn. Complaint investigated and case dismissed.

July 23.—Investigated complaint of low water in boiler of steamer *Frank E. Brown*. The fusible plug blew out at about 6 a. m. while steamer was tied at dock, soon after the engineer came aboard the boat. The cause of the low water could not be determined at the investigation. The engineer, Thomas E. Hempstock, was censured by the board for not reporting the matter before the boiler was again used.

July 26.—The tug *E. S. Booth* grounded on Salt rock, Stamford Harbor, at high tide, and as the tide fell, she listed and filled. Vessel was subsequently raised and towed, to New York. No lives lost and no persons injured. Estimated damage, $500.

September 17.—At about 7.07 the steamer *Priscilla* collided with a small motor vessel which had in tow a small sail vessel near Gangway rock, Long Island Sound. The small light carried by the motor vessel could not be sighted by the steamer in time to prevent a collision. The steamer was stopped and assistance offered. Motor vessel was wrecked. Damage to steamer, slight. No loss of life and no one injured. Estimated loss, $400.

September 18.—The oyster steamer *H. C. Rowe & Co.*, while en route from New Haven to Providence, lost 1 of the blades of the propeller, necessitating the return of the steamer to New Haven. No other damage.

September 23.—Investigated complaint made by S. E. Halberstadt, of New Rochelle, N. Y., charging negligence and misconduct against licensed officers in charge of passenger motor vessel *Edithia*. Case dismissed.

October 30.—Barge *Hartford and New York No. 76*, in tow of tug *Luther C. Ward*, began to fill with water during a heavy blow when off New Haven Harbor. The tow was brought into New Haven Harbor and the barge sunk in 3½ fathoms of water. No lives lost and no persons injured. Estimated loss, $800.

November 11.—The canal boat *Warner-Miller Co.* in tow of the steamer *J. C. Austin* grounded in Stamford Harbor at about 7 p. m. A wrecking company recovered boat and cargo. No lives lost, no persons injured, and no damage to steamer. Estimated damage to barge, $400.

November 17.—Tug *S. O. Co. No. 2* was in collision with schooner *Sarah L. Davis*, off Pecks ledge light, Connecticut. The schooner was on starboard side of steamer, showing green light, and suddenly changed her course and headed for the steamer, striking the steamer on the starboard side. Damage to steamer, $557; to schooner, $575. No lives lost and no persons injured.

November 20.—The tug *Margaret*, while proceeding through Long Island Sound, bound for New York, at about 4 a. m., ran aground on Execution rocks, due to pilot misjudging distance. Weather was hazy at the time of the accident. No lives lost, no persons injured. Estimated damage, $50.

THIRD SUPERVISING DISTRICT.

LOCAL DISTRICT OF NORFOLK, VA.

January 6.—About 2.30 a. m., steamer *Dennis Simmons*, when between Craney Island and Lambert Point, was run into by unknown tug. Damage to said steamer, about $150.

January 21.—About 6.30 p. m., with weather dark and smoky, steamer *New York* ran over and damaged buoy No. 11, located off Lambert Point. Report forwarded to Light-House Department.

January 26.—At 10 p. m., while steamer *Bohemia* was entering Hampton Roads with 5 barges in tow, an unknown steamer bound in the same direction ran between first and second barge, resulting in sinking barge *Mascot*. Damage, about $500. No lives lost.

February 20.—W. L. Stagg preferred charges of intoxication against Charles Clifford, master of steamer *Alma*. Charges were subsequently withdrawn.

March 5.—F. M. Phillips, master of steamer *Washington*, was charged by us with failure to have fire-drill notices made out according to law. Boat and fire drill inefficient and showed lack of discipline, using unlawful fire-alarm signal and failure to have fire drill between February 1 and 11, inclusive.

March 5.—Marvin J. Mercer, chief engineer of steamer *Washington*, was charged by us with having valves controlling the outboard delivery to fire pump in such condition that no pressure could be gotten on the fire line.

March 17.—Steamer *Teddie*, when off Portsmouth, Va., sprang a leak and was headed for shoal water, where she sunk. Cause unknown. No one hurt. Damage, about $1,000.

March 20.—Steamer *Endeavor*, E. W. Simmons, master, is reported as leaving Sewell Point on March 20, with passengers on board, without a compass.

April 24.—While steamer *James Smith, jr.*, was shifting a car float at the Chesapeake and Ohio pier at Newport News, deck hand named J. R. Swift, while attempting to get upon the dock with a line from the barge, lost his footing and was drowned.

May 5.—Steamer *Reliance*, while coming up Norfolk Harbor with schooner alongside, collided with steamer *Anna*, carrying away a part of the *Anna's* house. No one hurt.

May 8.—Charges preferred by Middleton Lodge 145, I. O. O. F., against W. R. Alexander, master, steamer *Chesapeake*, for refusing to render assistance to a man who had fallen overboard in Hampton Roads from a scow in tow of said steamer. W. B. Simmons drowned.

May 13.—Steamer *Salisbury*, when between Craney Island and Lambert Point, observed red light a little on starboard bow. She started to pass around stern, when just at this time the schooner *Captain* took a tack, striking boat davits on port side of steamer *Salisbury*, and knocking jib boom out on schooner *Captain*. No one hurt.

May 15.—When steamer *Winthrop* was about halfway out of the ferry slip at Norfolk, the pilot felt the wheel strike something, and, upon looking over the side, saw the motorboat *Gertrude* with her stern crushed off. No one hurt.

May 25.—Rufus Bizzell preferred charges against T. W. Hill, master of the motorboat *Carrie Ingle*, for coming up astern, striking his boat without warning. No one hurt.

May 30.—About 6.30 p. m., steamer *Jamestown* broke adrift at Newport News, in violent squall, striking ship *Brazos*, doing slight damage; also struck the yacht *Marietta III*, doing some damage. Theodore Catharine, master of steamer *Jamestown*, had right foot sprained.

June 1.—Steamer *Guide*, while crossing Albermarle Sound during strong northeast wind, shipped considerable sea on deck. Seams opened and she was run in 10 feet of water where she sunk.

June 19.—The engineer of steamer *L. H. Cutler* reported James E. Arnold, master, with drinking and assaulting him while the vessel was underway on Neuse River, N. C., and for leaving him at one of the landings, and proceeding with himself acting as engineer, and deck hand navigating the boat.

June 24.—Charges were preferred by Charles Sullivan against Francis E. Lindsay for falsifying application for marine engineer's license. Case investigated and license revoked.

June 24.—Charges were preferred by Charles Sullivan against R. P. Skipper for wrongfully certifying to the service performed by Francis E. Lindsay on steamer *Alexander Jones*, from September 14, 1903, to October 27, 1904. Case investigated and license suspended for 90 days.

September 2.—Steamer *Alabama*, while passing around a vessel at anchor, met the steamer *William B. Blades, jr.*, with a car float in tow coming from an oblique direction. Steamer *Alabama* struck corner of barge, doing slight damage to the *Alabama*. No one hurt.

September 4.—While proceeding down past Lambert Point, the motorboat *Gertrude* came out from behind a tramp steamer which was entering the dock, and ran directly across the course of the steamer *Virginia Dare*, striking her amidships. One man on the launch reported as being slightly hurt. The launch is under 15 gross tons and was steered by an unlicensed man. Damage, about $30.

September 25.—When about two and a half miles east by north from Thimble light, steamer *Howard* collided with New York, Philadelphia and Norfolk barge in tow of steamer *Pocomoke*. Damage to steamer *Howard* consists of plates bent on both bows. Damage to barge unknown.

October 3.—G. Tucker, deck hand on steamer *Washington*, was descending the port ladder aft when he lost his balance and fell, striking the main deck rail, killing or stunning him before he struck the water. Body was recovered in 8 minutes.

October 8.—When motor vessel *Elizabeth* was off Nottingham & Wrenn's wharf, Norfolk Harbor, about 7 p. m., a cry was made that a man was overboard. The launch was put about and search made, but he could not be found. Several days afterwards the man was found and identified.

October 17.—E. E. Beaman, chief engineer of steamer *Salisbury*, attempted to screw down the surface blow valve, when bonnet blew off, burning his face, eyes, arms, and head.

October 18.—About 8.30 p. m., when steamer *Mobjack* was returning to the Chesapeake dock, Richmond, Va., from trip to Dutch Gap with a colored excursion, a colored man, who had previously been fighting with a colored woman on board, jumped overboard, presumably with the intention of swimming ashore to avoid arrest. A boat was immediately lowered and diligent search made for the missing man, but he could not be found. Whether he was drowned or not is not known.

October 18.—During a dense fog off Pine beach, the steamer *Dennis Simmons* collided with U. S. torpedo boat *Barney*, and both boats sustained slight damage. No lives were lost or persons injured.

October 21.—Charges were preferred against William J. Beasley, engineer of steamer *Lucile*, for allowing the fireman to handle the engine while he acted as master.

October 22.—Charges were preferred against A. B. Palmer, master of steamer *Lucile*, for violating certificate of inspection by navigating more than 13 hours with single crew and for allowing his engineer to act as quartermaster.

October 28.—About 8.30 p. m., weather dark and raining, with strong northeast wind and flood tide, steamer *America* was proceeding to her mooring off Lambert Point, with 9 empty mud scows in tow, which had drifted across the channel, when the steamship *Jefferson*, proceeding down the channel, struck the middle barge. Ship being in backing motion at the time, only a small hole was made in barge. No one lost or hurt.

November 12.—Steamer *Hampton* foundered in Pamlico Sound during a storm. Crew landed at Ocracoke, N. C. Damage, about $500.

November 14.—Barge *Independent* was in tow of steamer *Edward Luckenbach.* About 9 p. m., when tow was returning to Hampton Roads for shelter, the barge, which was loaded with coal, sunk without warning. Strong ESE. to NNW. wind, raining at time, and heavy head sea. No sign of the crew could be found, and after cruising around until 1 a. m. of the 15th, the steamer proceeded to Norfolk with the remaining barge. Five men presumed to comprise the crew.

November 19.—About 6.30 a. m. fire was discovered in cargo of steamer *Chattahoochee*, when on voyage from Savannah to Boston. Water and steam were turned into the hold and ship headed for Norfolk, and came to anchor on Norfolk flats at 3 p. m., November 20, when ship was flooded. Damage, about $500.

November 19.—About 6 p. m., when proceeding in opposite directions in Norfolk Harbor, and after passing signals had been given and answered, steamer *Philadelphia* struck the steamer *Ridgewood* on port bow. No one hurt. Damage, about $800.

November 28.—About 8 p. m., weather dark and clear, when off Lambert Point, steamship *Monroe* exchanged one-whistle signal with tug *Portsmouth*, with barge in tow. The *Monroe's* wheel was put to port, engines slowed and stopped. Ship evidently felt the bottom, taking a rank sheer to port. Engines were reversed, but ship struck the barge a glancing blow. The tug had cast off the hawser and was getting back alongside the barge at the time. No one hurt. Estimated damage to steamship *Monroe*, $500; to barge, $2,100.

December 5.—Charges were preferred against W. L. Bentley, master of steamer *Transfer*, for crossing the whistle of the steamer *City of Portsmouth.* Case investigated and the master suspended for 3 days.

December 10.—The master of the steamer *Gazelle* was reported by the master of the steamship *Princess Anne* for having no lights on raft of logs which he had in tow.

December 11.—While getting steam on main boiler of steamship *Richmond*, at Norfolk, Va., the water was pumped out of port boiler. Second Assistant Engineer George H. Sandmann on watch. Damage to boiler slight. Case investigated and George H. Sandmann suspended for 30 days.

December 11.—Steamer *Isabelle* was destroyed by fire while lying at Jacks Creek, N. C. No one on board at the time. Damage, about $800.

December 24.—At 1.10 a. m., steamer *Julia Luckenbach*, when about 80 miles east of the Virginia capes, steering S. by W., and steamer *Camaguay*, steering about N. by W., collided. Steamer *Julia Luckenbach* struck the *Camaguay* on port quarter, doing about $4,000 damage to the *Julia Luckenbach.* Steamer *Camaguay* proceeded on voyage to New York, and *Julia Luckenbach*, bound for Porto Rico from New York, proceeded to Newport News for repairs.

December 28.—Steamer *J. W. Branning* was destroyed by fire at Edenton, N. C. Cause of fire unknown. Damage, about $600.

December 31.—Steamer *Spring Garden* was destroyed by fire at Cobham's wharf, James River. Cause of fire unknown. Vessel a total loss.

LOCAL DISTRICT OF BALTIMORE, MD.

1907.

December 26.—Clarence Adams, deck hand, was reported missing from steamer *Virginia.* The steamer left Baltimore at 5 p. m., bound for landings on the Wicomico River route to Salisbury, Md., and when the deck men were called at Hooper Island landing, the first wharf, Clarence Adams was missing. He was last seen about 8 or 9 p. m., on the freight deck, by different members of the crew. Whether he fell or jumped overboard is not known. Not investigated.

December 31.—About 7 p. m., fire originating from some unknown cause was discovered on the towing steamer *Annie*, while the vessel was tied up for the night at Commercial wharf, Baltimore, Md. The fire was confined to upper engine room. No loss of life; no person injured. Estimated damage, $60. Not investigated.

1908.

January 1.—About 5.30 a. m., steamer *Joppa* collided with wharf at Cambridge, Md., while making landing. James R. Corkrin, master, fell with vertigo just as vessel was making the wharf. No loss of life; no person injured. Estimated damage to steamer, $150; to wharf, $100. Not investigated.

January 7.—About 11.15 p. m., steamship *Lexington*, J. E. Ryan, master, grounded at James Point, Chesapeake Bay, Md., during a northwest gale. Vessel not damaged. Not investigated.

January 11 and February 21.—Investigation held in matter of collision between ferry steamer *Lackawanna*, 822 gross tons, of Washington, D. C., and schooner *Charles H. Daiger*, 61 gross tons. Collision occurred December 22, 1907, about 8 a. m., in Potomac River about 2 miles north of Alexandria, Va., during a thick fog. Decision rendered, March 5, and license of Henry Kendrick, master and pilot in charge of steamer *Lackawanna*, suspended for a period of 30 days.

February 14.—About 3.30 p. m., in Baltimore Harbor, Md., tug *Baltimore*, 81 gross tons, Greenbury M. Sevier, master, collided with schooner *Ella Worden* in tow of tug *Mohawk*, 10 gross tons, Paul F. Cullison, master. No loss of life; no person injured. Estimated damage to schooner, $250; to tug *Baltimore*, slight. Case investigated February 19. Decision rendered March 20, and the first-class pilot's license of Greenbury M. Sevier was suspended for a period of 10 days.

February 27.—About 2.15 a. m., steamer *Atlanta*, 2,094 gross tons, John Thomas, master, collided with schooner *Murray Vandiver*, in Chesapeake Bay off Potomac River. No loss of life; no person injured. Damage to steamer, slight; to schooner, unknown. Not investigated.

March 1.—About 5 a. m., steamer *Joppa*, James R. Corkrin, master, collided with wharf at Cambridge, Md., due to going into the wharf with too much headway while making landing. No loss of life; no person injured. Estimated damage to steamer, $1,500; to the wharf, $25. Not investigated.

March 31.—About 9.30 a. m., a lighter in tow of tug *Louie*, H. O. Kirby, master, collided with steamer *Major W. Allen*, G. W. Groves, master, in Baltimore Harbor, Md. The collision was presumably caused by a misunderstanding of signals. No loss of life; no person injured. Estimated damage to lighter, $50; to steamer, slight. Not investigated.

April 11.—Investigated charges preferred under date of January 6, against John E. Scott, master of tug *Dauntless*, for permitting said steamer to be navigated during the nighttime on the morning of December 12, 1907, without having 1 of the crew also on watch in or near the pilot house in addition to the pilot on watch, as provided for in section 45, Rule V, general rules and regulations prescribed by the board of supervising inspectors. Decision rendered May 29, and the license of John E. Scott, as master and first-class pilot, suspended for a period of 30 days. Appeal made to supervising inspector, third district, who, on June 5, modified the decision of the local board by remitting all but 10 days of the suspension.

April 20.—About 7.45 p. m., steamer *Alabama*, 1,938 gross tons, Walter G. Lane, master, collided with bugeye *J. A. Watkins* in the channel, Chesapeake Bay, near mouth of Patapsco River, resulting in the sinking of the bugeye. No loss of life; no person injured. The steamer was not damaged. Estimated value of bugeye, $400; actual damage, unknown. Not investigated.

April 22.—About 5.50 p. m., W. H. Thomas, the engineer, and Carroll Melvin, a passenger, on the tug *M. W. Hunt*, Walter Woolford, master, engaged in a friendly tussle on said steamer in Baltimore Harbor, Md., when both lost their balance and fell overboard. The tug was immediately turned around and efforts made to save the men, but both were drowned. Investigated May 9; decision rendered May 25; case dismissed.

May 1.—About 3 a. m., steam barge *Nellie*, George McQuilkin, master, loaded with sand, sank in Patapsco River, Md., near its mouth. There was a gale blowing and high seas at the time. No lives were lost. Case not investigated.

May 3.—About 8.30 a. m., steamer *Trenton*, 85 gross tons, William L. Davis, master, sunk at her wharf in Alexandria, Va. A child, the infant son of Mr. and Mrs. E. M. Posey, was drowned. Estimated damage to the steamer, which was afterwards raised, $1,000. Charges were preferred by the board of local inspectors against William L. Davis, master, James H. Beach, pilot, and Truman H. Hewitt, engineer, they being the licensed officers of said steamer at the time of the sinking. Investigation was held on May 21 and 22; decisions rendered on June 15 and 16; cases dismissed.

May 29.—Reported tug *Dauntless*, The P. Dougherty Co., Baltimore, Md., owners, to the collector of customs at Baltimore, Md., for violation of the provisions of section 45, Rule V, general rules and regulations prescribed by the board of supervising inspectors, by navigating said tug during the nighttime on the morning of December 12, 1907, without having 1 of the crew also on watch in or near the pilot house in addition to the regular pilot on watch. Fined $500.

June 24.—About 3 p. m., while the tug *Comet*, Warner W. Coleman, master, was bound down Baltimore Harbor, Md., the motor launch *Lillie B*, John Sauer, captain, came out from Bixler's railway, full speed, crossing the bow of the tug, which struck the launch about amidships. No loss of life; no person injured. Estimated damage to launch, $50; to tug, none. Not investigated.

July 16.—About 5.30 p. m., a collision occurred in Baltimore Harbor, Md., between a scow in tow of tug *R. H. Cook*, Elmer Phillips, master, and a scow in tow of tug

Thomas B. Webster, David Wood, master. No loss of life; no person injured. Estimated damage to scow in tow of tug *R. H. Cook*, $54; to scow in tow of tug *Thomas B. Webster*, none. Case investigated August 20 and September 1; decision rendered September 23, and the first-class pilot's license of David Wood suspended for a period of 5 days.

July 31.—About 9.30 a. m., the bugeye *Nettie Allison*, R. L. Rogers, master, collided with a lighter in tow of tug *Lauretta Spedden*, B. W. Dorsey, master, damaging lighter about $75. Bugeye sank, and its crew was taken from their lifeboat by the officers and crew of the tug. No loss of life; no person injured. Not investigated.

August 4.—About 12 m., Mr. Powell Chambers, a passenger and 1 of a party of men on a fishing trip, fell overboard from the steamer *Mandalay*, Samuel S. Harrington, master, and drowned in Chesapeake Bay, off Point No Point, although every effort was made to save him. Case investigated, August 6; decision rendered, August 11, exonerating Captain Harrington and those connected with the steamer from any responsibility for the drowning.

August 9.—About 2.30 a. m., while steamer *River Queen*, G. E. Cook, master, was lying at wharf, tied up for the night, in Potomac River, at Possum Nose, Va., a splash was heard in the water and, search being made, it was found that a boy named Perry Calvert, a passenger, had disappeared, and it is supposed he fell overboard and was drowned. Not investigated.

August 11.—About 4 p. m., collision occurred in Baltimore Harbor, Md., about abreast of Chase's wharf, between steamer *Kitty Knight*, John Welch, master, and motor launch *George Weaver*, George Nadab, operator and navigator, resulting in the capsizing and badly smashing of the motor launch and the drowning of Nils Gaber, a passenger on the launch. Estimated damage to the launch, $300; to the steamer, none. Case was investigated, August 21, 22, September 10; decision rendered, October 13, and master and pilot's license of John Welch suspended for a period of 60 days. Appeal was made by Captain Welch to the supervising inspector, third district, and the decision of the board of local inspectors sustained.

August 24.—About 1.30 a. m. fire was discovered in the upper engine room of the tug *Little Nora* by a policeman. The tug was tied up for the night at Henderson's wharf, Baltimore Harbor, Maryland. Origin of fire unknown. No person injured; no loss of life. Estimated damage to the tug $700. Not investigated.

September 3.—About 12.30 a. m. tug *Wm. H. Yerkes, jr.*, R. L. Brown, master, struck the wreck of the schooner *E. G. Erwin*, off Point Lookout bar, mouth of Potomac River, Maryland, breaking 2 planks on starboard side of tug about 20 feet from the stem. Wharf at Point Lookout was reached, where the tug filled and grounded. Was pumped out next day and towed to Alexandria, Va. Estimated damage, $35. No loss of life; no person injured. Case not investigated.

September 3.—About 12.30 p. m. steamer *Tangier*, C. J. Henderson, master, was in collision with schooner *Nellie*, in Pungoteague Creek, Virginia. No loss of life; no person injured. Estimated damage to steamer, $5; to schooner, $50. Not investigated.

September 7.—About 4.30 p. m. steamer *Anne Arundel*, W. C. Geoghegan, master, was in collision with tug *Rosalie*, James H. Beach, master, in Potomac River, off Alexandria, Va. No loss of life; no person injured. Estimated damage to tug *Rosalie*, $50; to steamer, none. Not investigated.

September 21.—About 7 a. m., while motor vessel *Caroline Vinyard*, Thomas J. Ray, master, was off Grove Point, mouth of Sassafras River, Maryland, en route to Baltimore, Md., George Holson, deck hand, fell overboard and drowned, although every effort was made to rescue him. Investigated September 28; decision rendered October 5; case dismissed.

September 24.—About 4.55 p. m. Albert Smith, colored, alias Denny, a passenger, was reported to have leaped overboard from the aft quarter deck of the steamer *Annapolis*, Frederick W. Kolb, master, while the steamer was navigating Chesapeake Bay, about 1 mile north of Sharps Island light-house. A boat was made ready and the steamer turned back, but nothing was seen of the man. Not investigated.

October 5.—About 1.30 a. m. the fire boat *Cataract*, Iverson J. Moon, master, while responding to an alarm of fire, collided with the bridge of the Baltimore and Ohio slip at the foot of Fells street, Baltimore, Md. No loss of life; no person injured. Damage to steamer slight. Not investigated.

October 8.—About 5.10 p. m. steamer *Pocomoke*, W. F. Joynes, master, was in collision with the steamship *Freke*, resulting in the crushing of the joiner work on the port side forward of the forward gangway, tearing up both saloon and main deck, and all the joiner work, railing, etc., of the *Pocomoke*. No loss of life; no person injured. Estimated damage to steamer *Pocomoke*, $1,500; to steamship *Freke*, unknown. The collision occurred in Baltimore Harbor, Maryland. Not yet investigated.

October 15.—About 9.30 a. m a collision occurred between schooner *Annie E. Webb*, in tow of tug *Mary P. Riehl*, Marion De K. Webb, master, and a lighter in tow of tug

Irene, Jesse A. Thurlow, master, in Baltimore Harbor, Maryland. No loss of life; no person injured. Estimated damage to schooner, $90; to lighter, $20. Not investigated.

November 3.—About 7.50 a. m. steamer *Washington*, Frank M. Phillips, master, and steamer *Lackawanna*, Henry Kendrick, master, were in collision, in Potomac River, between Alexandria, Va., and Washington, D. C., there being a thick fog at the time of the collision. One life lost; one person injured. Estimated damage to steamer *Washington*, $2,000; to steamer *Lackawanna*, $10,000. Case investigated November 13; decision rendered November 25; Frank M. Phillips's license as master and pilot suspended for a period of 30 days, and Henry Kendrick's license as master and pilot suspended for a period of 90 days. Appeal was made to the supervising inspector, third district, who remitted the 30 days suspension of Captain Phillips's license, and also remitted 60 days of the 90 days suspension of the license of Captain Kendrick.

November 7.—About 9 p. m., while lying at dock at Whealton, Va., in the Rappahannock River, steamer *Mabel W. Gouldman*, William P. Mullen, master, caught fire from some unknown cause and was burned. No loss of life; no person injured. Estimated damage, $11,000. Not investigated.

November 10.—About 6 a. m., in Patapsco River, off Wagner Point, Maryland, during a heavy fog, the steamer *Avalon*, B. Thomas, master, drifted into the steamship *Itasca*, B. F. Hatch, master, damaging the *Avalon's* guards and deck about 2 feet forward of the forward gangway, and the joiner work on the saloon and hurricane decks. No damage to the *Itasca*. No loss of life; no person injured. Estimated damage to steamer *Avalon*, $200. Not investigated

November 17.—About 10.30 p. m., in Patapsco River, off Fort Carroll, Md., the tug *M. W. Adams*, Usher B. Bennett, master, with scow in tow, was in collision with bugeye *Marion*. No loss of life; no person injured. Estimated damage to bugeye, $75; to tug and scow, none. Not investigated.

November 24.—About 9.40 p. m., in Brewerton Channel, Patapsco River, Maryland, during a heavy fog, the steamer *Westmoreland*, J. H. M. Burroughs, master, was in collision with the gasoline bugeye *Richard J. Vetra*. No loss of life; no person injured. Estimated damage to steamer, $10; to bugeye, $200. Not investigated.

December 5.—The ferry steamer *City Belle*, while lying at her wharf, tied up for the night, at Port Deposit, Md., was totally destroyed by fire. Origin of fire unknown. No loss of life; no person injured. Estimated loss, $1,800. Not investigated.

December 6.—About 6.45 p. m., in Baltimore Harbor, Maryland, the steamship *Powhatan*, John E. Ryan, master, was in collision with the schooner *James R. Teel*, Alfred A. Price, master. No loss of life; no person injured. Estimated damage to schooner, $700; to steamship, none. Case investigated December 21; decision not yet rendered.

December 10.—Investigated charges preferred against Charles H. Wilser, alleging that he made false statement under oath of his service on certain waters, thereby securing an indorsement authorizing him to act as pilot of steam vessels on his license as chief mate of sail vessels. Decision rendered December 10, and such indorsement as pilot of steam vessels was canceled.

December 11.—About 7.15 a. m. a scow in tow of tug *Wm. A. Johnson*, Leon Le F. Jorss, master, was in collision with the gasoline motor launch *Duly Boys*, Dominick R. Duly, operator and navigator, in Baltimore Harbor, Maryland. No loss of life; no person seriously injured. The collision resulted in the capsizing of the launch, which had on board 24 passengers, in addition to the operator and navigator. Estimated damage to launch, $200; to the tug and scow, none. Case investigated December 18; decision not yet rendered.

December 31.—About 3.30 p. m. the tug *Lauretta Spedden*, B. W. Dorsey, master, bound from Baltimore, Md., to Annapolis, Md., was overtaken by the schooner *Lorena E. Bramble* and collided. No loss of life; no person injured. Estimated damage to the tug, $250; to the schooner, none.

LOCAL DISTRICT OF CHARLESTON, S. C.

February 15.—At about 10 p. m., fire was discovered aboard the tug *Juno* in Charleston Harbor. Before assistance could be rendered, she was turned adrift by the schooner *James B. Jordan*. The origin of the fire has not been ascertained, although there was a watchman on board. Value estimated at $10,000.

February 19.—In Waverly Creek, South Carolina, steamer *Frank Sessoms* while clearing creek and backing stern of steamer to wind to go up river, and before steamer could be gotten underway, the wind suddenly shifted, blowing a gale from southwest, the steamer springing a leak in the seaway. Two attempts were made to re-enter creek without success, and she was then run upon a mud bank on the western shore and passengers taken ashore in the lifeboats, live-preservers having previously been put on the passengers and crew. All of the passengers and crew with the exception of Edward Saxby, cook, who was drowned, reached the shore in safety. Estimated value of steamer, $4,000. Estimated value of cargo, $1,000.

March 5.—At Remley Point in Charleston Bay, South Carolina, while launch *Erna M. Lucas* was racing with launch *Winona*, they collided. Investigation made, and license of Jack White, operator of the *Erna M. Lucas*, suspended for 30 days for violation and ignorance of the pilot rules for the inland waters of the Atlantic and Pacific coasts.

May 20.—At about 12.05 p. m., off the Atlantic coast between Frying Pan light-vessel and Cape Romain, fire was reported in the after part of the engine room on bulkhead of steamer *George Weems*, Captain L. G. Hudgins. Fire apparatus was immediately manned, and 3 streams of water obtained in 10 or 15 seconds. Excellent discipline was maintained, both officers and crew working valorously to extinguish the fire until about 1.30 p. m., when, on account of the great rapidity with which the fire was gaining, and the captain seeing that by remaining longer he was jeopardizing the lives of the officers and crew, he gave the order to abandon ship, which was done in a seamanlike manner. After seeing all hands safely in the lifeboat, the captain left the ship and laid his course for Frying Pan light-vessel, from the deck of which he saw the steamer *George Weems* disappear about 8 p. m. Steamer valued at $25,000.

July 24.—Steamer *Governor Safford*, Charles M. Turpin, master and pilot, left Georgetown, S. C., in tow of steamship *Katahdin;* sea smooth. On the Atlantic coast between Frying Pan and Lookout, wind shifted, Sea raised, starting up overhanging guards of steamer, and allowing seas to enter hull. The pumps broke down, and steamer was abandoned off Bogue Inlet, N. C., in 7 fathoms of water. The crew saved themselves in their own boat and boarded the steamship *Katahdin*, which had been laying by. Steamer foundered. Estimated value, $25,000.

November 3.—Steamer *Tar Heel*, C. H. Watts, master and pilot, arrived at her dock at Georgetown, S. C., at 11.15 p. m., November 2, perfectly dry with cargo of lumber. She sank about 5 or 6 o'clock Tuesday, November 3. Supposed to have caught under wharf. No lives lost. Estimated property loss, $2,000.

November 9.—On admission of charges that the steamer *Loretta* had been navigated without licensed engineer, license of Orville R. Craig, master and pilot, was suspended for a period of 30 days, his excuse of going after some logs that had gotten adrift not being considered justifiable.

LOCAL DISTRICT OF SAVANNAH, GA.

January 30.—Steamship *Lampasas*, C. McIntosh, master, bound from Galveston to New York, grounded on Rebecca Shoal, Florida reefs. Worked off after unloading part of coal bunkers and proceeded on voyage apparently uninjured.

March 29.—Tom Price, negro deck hand on steamer *Swan*, fell overboard and drowned while steamer was lying at dock at Griffin's landing, Savannah River, loading.

August 29.—Steamer *Two States* struck a sunken lighter near wharf at Augusta, Ga., during flood in river and sunk. No loss of life. Vessel raised and repaired. Total loss on cargo and vessel estimated at $5,000.

October 13.—Steamship *Frederick*, Walter M. Jones, master, bound from Savannah to Baltimore, broke connecting rod. By aid of sail vessel returned to Savannah and made repairs.

October 31.—Steamer *Redwing* burned and sunk at her dock at Brunswick, Ga. No loss of life. Cause of fire unknown. Estimated loss, $3,000, fully covered by insurance.

November 14.—License of Sam Madison, pilot, suspended for navigating steamer *A. E. Chappell* without required complement of officers, and as passenger steamer under freight certificate.

November 14.—License of Arthur B. Castelein, chief engineer, suspended for acting on steamer *A. E. Chappell* without required complement of officers, and on steamer navigating as passenger steamer under freight certificate.

LOCAL DISTRICT OF JACKSONVILLE, FLA.

June 21.—At 4.11 p. m., steamship *Algonquin*, John N. Staples, master, grounded off coal dock foot of Hogan street. At 6.30 p. m., assisted by tug *Tupper*, backed off and proceeded on voyage. Apparently no damage done to the ship.

August 29.—Steamer *Harry Lee* and motor vessel *Kingfisher* collided near beacon No. 80 just below Brown's landing on St. Johns River, Florida. No loss of life. Slight damage to motor vessel *Kingfisher*. No damage to steamer *Harry Lee*.

September 2.—At 3.30 p. m., steamer *Heck*, while going up Peters Creek, St. Johns River, Florida, struck a log on her starboard side a little abaft amidship, causing her to sink in 15 feet of water. No lives lost. Steamer will be raised.

September 23.—Towing steamer *Wellington* was reported to the collector of customs, Jacksonville, Fla., for navigating on an expired certificate of inspection between August 8 and 22. This matter was investigated by this board. Decision September 23, censuring officers, and case dismissed.

November 5.—Towing steamer *Three Friends* was reported to the collector of customs, Jacksonville, Fla., for navigating for more than 13 hours without having on board an assistant engineer, between October 19, at 5 p. m., to October 21, at 5 p. m. This matter was investigated by this board. Decision, November 5. Testimony being hearsay, charges were not sustained, and case dismissed.

FOURTH SUPERVISING DISTRICT.

LOCAL DISTRICT OF ST. LOUIS, MO.

January 2.—Charges were preferred against Charles Williams, engineer of the steamer *James Y. Lockwood*, navigating within the harbor of St. Louis, Mo., for carelessness and inattention to duty, resulting in the burning of furnace flue of boiler of said steamer. Investigation held January 6, and accused found guilty and license as chief engineer revoked.

January 24.—Charges were preferred against Sidney Smith, pilot of the steamer *Peters Lee*, navigating between St. Louis, Mo., and Cairo, Ill., for being drunk. Accused appeared at this office and pleaded guilty, and license as master and pilot was suspended for 6 months.

March 10.—Reported ferry steamer *Alonzo C. Church*, 332 gross tons, of St. Louis, Mo., to the United States district attorney and United States surveyor of customs at St. Louis, Mo., for carrying petroleum without permit in violation of section 4472, Revised Statutes. Also preferred charges against pilot in charge for negligence and inattention to duty.

March 10.—Charges were preferred against Frank Weick, pilot in charge of ferry steamer *Alonzo C. Church*, 332 gross tons, of St. Louis, Mo., for permitting petroleum (coal oil) to be transported on said vessel between St. Louis, Mo., and East St. Louis, Ill., March 7, in violation of section 4472, Revised Statutes. Accused appeared at this office and pleaded guilty, and license as master and pilot was suspended for 10 days.

May 12.—Reported motor vessel *E. F. Dawes*, of 21 gross tons, of Sioux City, Iowa, to United States district attorney, Sioux Falls, S. Dak., and United States surveyor of customs, Sioux City, Iowa, for violation of Title LII, Revised Statutes, for navigating without a certificate of inspection. The inspection of said vessel was begun July 30, 1907, and not completed for reason of deficiencies in equipment and certificate withheld, and the vessel navigated up to May 6, 1908, although certificate of inspection had not been issued.

May 11.—Michael Flanagan, of St. Louis, Mo., was granted a renewal of mate's license, and shortly after leaving the office of the local inspectors the supervising inspector of the fourth district overheard his conversation with another mate, in which abusive and vulgar remarks were made by him concerning the local inspectors, at the same time tearing to pieces a pamphlet copy of the pilot rules and throwing same into the street with profane remarks; thereby offering insult to the inspectors and the Steamboat-Inspection Service; and on being requested to return to inspectors' office and explain his actions he positively refused to do so. His license was secured by the supervising inspector, delivered to the local inspectors, and revoked.

May 15.—A reinspection of the steamer *City of Memphis*, 432 gross tons, of St. Louis, Mo., was made at St. Louis, Mo., and on account of the unseaworthiness of the vessel and dangerous and dilapidated condition of life-preservers, lifeboats, and hose, it was ordered in writing that the vessel cease navigation at once and be placed on docks or ways for repairs to hull; also that the equipments be placed in proper and legal condition. Disregarding these instructions, and in violation of sections 4453 and 4454, Revised Statutes, steamer departed from St. Louis, Mo., p. m., May 15. Case turned over to the United States attorney for prosecution; certificate of inspection revoked, and charges preferred against the master.

May 16.—Charges were preferred against Thomas B. Sims, master of river steamers, for navigating the steamer *City of Memphis*, of 432 gross tons, of St. Louis, Mo., between St. Louis, Mo., and Cape Girardeau, Mo., after being notified in writing by this board that said steamer must cease navigation owing to repairs ordered on hull and additions to equipment, section 4453, Revised Statutes. Case investigated May 21, and charges sustained, and his license as master revoked.

May 28.—It came under the personal observation of the supervising inspector of the fourth district that the steamer *Echo*, of 15 gross tons, of St. Louis, Mo., was navigating within the harbor of the city of St. Louis, Mo., without the lifeboat required by the vessel's certificate of inspection, and on June 2 charges were preferred against William A. Haley, pilot in charge, for negligence and inattention to duty; who appeared before local inspectors and pleaded guilty. License as first-class pilot suspended for 30 days.

June 27.—Reported passenger steamer *City of Memphis*, 432 gross tons, of St. Louis, Mo., to the United States district attorney and United States surveyor of customs at St. Louis, Mo., for carrying petroleum and gunpowder without permit or license in violation of section 4472, Revised Statutes.

July 1.—While steamer *Sidney*, 617 gross tons, of St. Louis, Mo., was about to make landing at Gregory landing, Mo., during heavy rain storm at 10.30 p. m., a deck passenger, name unknown, while intoxicated, passed deck watchman on the forecastle and disappeared; supposed to have fallen overboard.

August 10.—While the steamer *Gallardo*, 45 gross tons, of La Crosse, Wis., was unloading freight at Kingston Mines, Ill., a passenger by name of Elmer Mason, while intoxicated, fell overboard and was drowned. All efforts were made to save him as soon as missed, but to no avail.

August 27.—William M. Simmons, mate of river steamers, was found drunk on board the steamer *Omaha* at St. Louis, Mo., by the local inspectors and his license was suspended for a period of 60 days.

September 10.—While the steamer *Eloise*, of 89 gross tons, of Burlington, Iowa, was lying at the bank at Keokuk, Iowa, she took fire at 12.30 a. m., and was damaged to the extent of $1,500. No lives lost or persons injured. Vessel repaired and again put in commission.

September 11.—While the steamer *Tennessee*, of 334 gross tons, of Kansas City, Mo., was ascending the Missouri River near Kansas City, Mo., she struck a hidden obstruction, causing such damage to hull that the vessel sunk. No lives lost or persons injured. Estimated damage to vessel and cargo, $85,000.

October 18.—The steamer *Omaha*, 257 gross tons, and the steamer *Belle of Calhoun*, 451 gross tons, both of St. Louis, Mo., collided while underway near Tisdale Island, Mo., damaging steamer *Omaha* about $100. No damage to steamer *Belle of Calhoun*. No lives lost or persons injured.

October 19.—While towing steamer *Mary Mc.*, of 22 gross tons, of Burlington, Iowa, was lying out of commission at St. Louis, Mo., fire broke out at 4 a. m.; cause unknown, vessel total loss. Amount of damage, about $2,500. No lives lost or persons injured.

November 2.—Reported ferry steamer *Perryville*, of 77 gross tons, of St. Louis, Mo., to the United States district attorney and United States surveyor of customs at St. Louis, Mo., for navigating the Mississippi River between Chester, Ill., and Claryville, Mo., without licensed officer as required by certificate of inspection, one Curtis Murphy, a boy, acting and serving as engineer without license to act in such capacity.

November 2.—Reported motor vessel *Belle of Glasgow*, 15.77 gross tons, of Kansas City, Mo., to the United States district attorney and United States surveyor of custom, Kansas City, Mo., for navigating the Missouri River between Miami, Mo., and De Witt, Mo., without the licensed officers required by certificate of inspection, one Simon Thornsberry acting as pilot, and one William Libby acting as engineer, neither of whom hold license to serve in such capacity.

November 4.—Charges were preferred against John M. Lewis, pilot of the steamer *Omaha*, and Selby H. Crader, pilot of the steamer *Belle of Calhoun*, for negligence, inattention to duty, and dangerous navigation, resulting in collision between these steamers on the Mississippi River at Tisdale Island, Mo., October 18, a violation of pilot Rule VIII and sections 4439 and 4442, Revised Statutes. Trial held November 7, and charges sustained. Master and pilot license of John M. Lewis suspended for 30 days. Pilot license of Selby H. Crader suspended for 15 days.

November 5.—This office received report of inspector fifteenth light-house district of the steamer *Omaha*, of 257 gross tons, of St. Louis, Mo., carrying away buoy, light, float, and bell at Chain of Rocks, Mo. Charges were preferred against Milt R. Harry, master, for failure to report the accident to this office as required by section 23, Rule V, rules and regulations. Trial held November 7, and charges sustained. License as master and pilot of river steam vessels suspended for a period of 10 days.

November 24.—At a reinspection of ferry steamer *Jos. L. Stephens*, 85 gross tons, of Kansas City, Mo., it was found that the equipments thereof had not been kept in proper condition, and on November 27 report was received that on September 27 the pilot left said vessel without a licensed pilot in charge and without giving sufficient notice to owner. Charges of negligence, inattention to duty, and wrongfully and unreasonably refusing to serve in official capacity, in violation of sections 4442 and 4449, Revised Statutes, have been preferred against George B. Goodman, pilot in charge.

November 24.—At a reinspection of ferry steamer *Jos. L. Stephens*, 85 gross tons, of Kansas City, Mo., it was found that the machinery thereof had not been kept in proper condition, and on November 27 report was received that on September 27 the engineer left said vessel without a licensed engineer in charge and without giving sufficient notice to owner. Charges of negligence, inattention to duty, and wrongfully and unreasonably refusing to serve in official capacity, in violation of sections 4441 and 4449, Revised Statutes, have been preferred against George F. Wilson, the engineer in charge.

December 28.—Investigated charges preferred against George B. Goodman, pilot of river steam vessels, on November 27, for negligence, inattention to duty, wrongfully and unreasonably refusing to serve; violation of sections 4442 and 4449, Revised Statutes. Charges have been sustained and license revoked.

December 28.—Investigated charges preferred against George F. Wilson, engineer of steam vessels, on November 27, for negligence, inattention to duty, wrongfully and unreasonably refusing to serve; violation of sections 4441 and 4449, Revised Statutes. Charges have been sustained and license revoked.

December 28.—On September 28 the licensed officers of the ferry steamer *Jos. L. Stephens*, 85 gross tons, of Kansas City, Mo., left the steamer without giving the owner sufficient notice to obtain a licensed engineer, and Charles Meierhoffer, managing owner, served as engineer for several trips between Boonville, Mo., and opposite shore on said date, without holding a license from the Steamboat-Inspection Service to act in such capacity. Case reported to United States district attorney and surveyor of customs, Kansas City, Mo. This violation came to our notice at the trial of George F. Wilson, engineer, for violation of sections 4441 and 4449, Revised Statutes, on December 28.

FIFTH SUPERVISING DISTRICT.

LOCAL DISTRICT OF DUBUQUE, IOWA.

March 27.—B. A. Onsten, of Rock Island, Ill., alleged that motorboat *Grandpa* was being used by Andrew Herman, owner, on the Mississippi River at Rock Island, Ill., in carrying passengers for hire, without licensed operator, etc. Case reported to United States surveyor of customs, Rock Island, Ill.

March 27.—P. G. Roy, Iona, S. Dak., alleged that motorboat *The Willson* was being operated on the Missouri River at Bijou Hills, S. Dak., by F. M. Wallace, owner, in carrying passengers for hire, without equipment, licensed operator, etc. Case reported to United States surveyor of customs, Sioux City, Iowa.

May 8.—While lying at the dock at Burlington, Iowa, during a storm at night, the small steamer *Nautilus*, with no one on board, listed to starboard, and owing to a siphon valve being left open, filled and sunk. No damage, except cost of raising.

May 27.—Capt. Jesse D. Mefford, of Quincy, Ill., filed complaint alleging that steamer *Eloise* had been navigated between Burlington and Keokuk, Iowa, in charge of a man (name not given) acting as master, who was not duly licensed. Case reported to United States surveyor of customs, Burlington, Iowa.

June 11.—Charles E. Tallman submitted affidavit alleging that E. E. Lindsay and John Olsen had operated their motorboats, at Pierre, S. Dak., carrying passengers for hire, without licensed operators and proper equipment. Case reported to United States surveyor of customs, Sioux City, Iowa.

June 17.—Upon receipt of information alleging that W. H. Loomis was navigating his motorboat *Vermilion* on the Missouri River, near Lucas, S. Dak., in violation of the law, in carrying passengers for hire, without having required equipment, licensed operator, etc., the matter was reported to the United States surveyor of customs at Sioux City, Iowa.

June 11 to 22.—Herman C. Lorenz submitted affidavit alleging that the motorboats *Iowa* and *J. H. Keene*, navigating the Missouri River near Chamberlain, S. Dak., had carried passengers in excess of number allowed by certificates, and without having required number of life-saving appliances on board, and without required number of crew; that Irven Coulter had acted as master of motorboat *Iowa* without having his license on board; and that A. B. Ayres had acted as engineer of motorboat *J. H. Keene* after his license as engineer had expired; violations of sections 4438, 4446, 4463, 4465, and 4488, Revised Statutes. Case reported to United States surveyor of customs at Sioux City, Iowa.

July 7.—While steamer *Quincy* was at Dubuque, Iowa, engineer discovered a defective tube in boiler. Necessary repairs were made at once. Damage, about $15.

July 11.—When steamer *Quincy* was near Muscatine, Iowa, piston rod of one of the engines broke, blowing out forward cylinder head. Damage, about $150. One man had heel slightly bruised by being struck with piece of cylinder head.

July 26.—Steamer *W. Harlock*, while going into Lyons, Iowa, landing, broke crank shaft. Damage, $20.

August 12.—While the steamer *Quincy* was ascending the Mississippi River near Dubuque, Iowa, with a fuel barge in tow, from which crew was coaling the steamer, David Rimson, a colored deck hand, accidentally fell overboard and was drowned. A boat was lowered, but he went down before it could reach him.

September 7.—As steamer *E. Rutledge* was entering the drawbridge at Winona, Minn., the bridge tender commenced to close the draw, swinging the lower end across bow of steamer at a very rapid rate. Boat was stopped and backed to avoid a collision, but it was too late, and the result was that both smokestacks and the pilot house were knocked down and totally destroyed. There was no one injured. Amount of damage not reported.

September 9.—While the steamer *Eloise* was lying up for the night at Keokuk, Iowa, vessel caught fire in some manner not known, at 12.30 a. m., resulting in damage to upper works. Damage estimated at $1,500.

September 24.—D. A. Dorrance, master and pilot in charge of steamer *James P. Pearson*, filed complaint alleging that while said steamer was passing through a narrow channel in the Mississippi River at Moline, Ill., W. D. Holsapple, pilot of the U. S. S. *Ruth*, violated the pilot rules by reckless navigation in said narrow channel, causing the steamer *James P. Pearson* to swing from her course, and the barge which she had in tow to strike a rock and sink, with a total loss of the cargo, estimated at $300. Case was investigated October 12, and D. A. Dorrance was found guilty of negligence, inattention to duties, and violation of the pilot rules, and his license as master and pilot was suspended for 30 days.

October 16.—While steamer *Potosi* was ascending the Mississippi River at Spechts Ferry, Iowa, the shaft broke in the port bearing. Damage amounted to $250.

October 20.—O. J. Thompson, master and pilot of steamer *Benjamin*, was in a state of intoxication at time of inspection of said steamer. His license as master and pilot was suspended for a period of 10 days from said date.

November 4.—While the steamer *Potosi* was navigating near Dubuque, Iowa, the cylinder head of engine on port side was knocked out, caused by breaking of piston rod at crosshead. Damage amounted to $50.

LOCAL DISTRICT OF DULUTH, MINN.

January 3.—Grant P. Marsh, whose license as master and pilot was revoked December 3, 1907, appealed from said decision to the supervising inspector of the district. Decision was sustained.

January 23.—Louis Ronning, a passenger on steamer *C. W. Moore*, when abreast of Encampment Island, Lake Superior, left his room at 4.50 a. m., jumped overboard, and drowned. He was demented.

April 10.—Gasoline motorboat *Jennie* was sunk and wrecked by ice while lying at Mondak, Mont. Loss estimated at $2,000.

May 2.—Steamer *J. L. Williams*, while lying alongside of a lighter at the Northwestern Fuel Company's dock, Duluth, Minn., was damaged to the extent of about $280, by being crushed by steamer *J. T. Hutchinson*, which was making a landing. The lighter was also damaged to the extent of about $1,400. Accident was caused by the current.

May 16 and 17.—Steamer *The Purchase* was navigated from Wabasha to St. Paul, Minn., without an unexpired certificate of inspection. Violation of sections 4417 and 4418, United States Revised Statutes. Violation reported to the chief officer of customs at St. Paul, Minn.

May 18.—Steamer *Samuel Mitchell* ran aground at Houghton Point, Lake Superior, and was run into by the barge *Chickamauga*, which she was towing, and was damaged to the extent of $7,000. The accident was caused by fog.

June 6.—Steamer *Tom Dowling*, while lying at Wisconsin Central ore dock, Ashland, Wis., sunk in 20 feet of water. After raising the vessel it was found that the accident was caused by an open sea cock. Damage estimated at $500.

June 8.—Steamer *F. Weyerhaeuser* collided with a railroad bridge abreast of Hastings, Minn., and was slightly damaged. Accident was caused by delay in opening draw of bridge.

June 18.—Steamer *Leonard C. Hanna*, in making a turn in the channel in the vicinity of the St. Paul and Western coal dock, Superior, Wis., veered from her course and collided with steamer *Socapa*, which was lying at said dock, damaging each vessel to the extent of $1,500. Accident was caused by the current.

June 24.—Steamer *Salt Lake City*, in tow of tug *B. B. Inman*, in going through the Northern Pacific Railroad bridge, Duluth, Minn., attempted to go through the southerly draw while the tug was endeavoring to go through the northerly draw. The southerly draw was not open to navigation, and steamer *Salt Lake City* collided with a machinery scow, doing about $1,000 worth of damage. No damage to vessel.

June 30.—Steamer *O. K.* was destroyed by fire at Fort Benton, Mont. Origin of fire unknown. Loss estimated at $5,000.

June 30.—Vincent Price, a 12-year old boy passenger on steamer *The Purchase*, fell overboard and was drowned. The accident occurred about abreast of South St. Paul, Minn. It was not witnessed by anyone. The body was recovered.

July 1.—Steamer *H. P. McIntosh* was navigated from Fort William, Ontario, to Duluth, Minn., without inspection as required by sections 4417 and 4418, United States Revised Statutes. Violation reported to the chief officer of customs at Duluth, Minn.

July 1.—Gasoline motor boat *Victoria*, while crossing the Missouri River, became disabled through the main gear breaking. Capt. M. Saunders Small, in attempting to take a line ashore in a rowboat, drowned by the rowboat being capsized by the swift current.

July 6.—Steamer *Phoenix* was reported to the chief officer of customs at Duluth, Minn., for being navigated without inspection as required by sections 4417 and 4418, United States Revised Statutes.

July 19.—Steamer *Hiawatha*, for carrying passengers greatly in excess of the number allowed by inspection certificate, was reported to the chief officer of customs at St. Paul, Minn., for violation of section 4465, United States Revised Statutes.

July 27.—Steamer *Islay* was navigated on the Duluth-Superior Harbor without inspection in violation of sections 4417 and 4418, United States Revised Statutes. Violation reported to the chief officer of customs at Duluth, Minn.

July 28.—Steamer *George W. Peavey*, while bound up Lake Superior in a fog, stranded on the north shore 3 miles east of Two Harbors, Minn. The vessel released herself in about 1 hour and proceeded to Superior, Wis., where repairs costing about $1,200 were made.

August 10 to 15.—Steamer *Tempest* was navigated on the Duluth-Superior Harbor without inspection in violation of sections 4417 and 4418, United States Revised Statutes. Violation reported to the chief officer of customs at Duluth, Minn.

August 18.—Steamer *Sarah Smith*, while lying at anchor in Duluth Harbor, caught fire and burned to water's edge. Fire is supposed to have caught from a stove. Vessel was a total loss, valued at $3,000.

September 1.—Steamer *Buffalo*, in going from Elevator B to Northern Pacific dock No. 2, Duluth, Minn., collided with steamer *William B. Kerr*, which was lying at anchor in the harbor basin. The accident was caused by the steering gear becoming disabled. Damage to steamer *Buffalo* about $15,000; to steamer *William B. Kerr*, about $10,000.

September 16.—Charges were filed against James Owen by the Northern Pacific Railway Company of alleged incompetency, misconduct, negligence, and unskillfulness and the endangering of human life in the handling of steamer *Salt Lake City* on June 24, when the vessel collided with their scow engaged in work on their bridge at Duluth, Minn. Investigation of charges is pending.

October 14.—Steamer *Mataafa* collided with steamer *Sacramento* at about 2 a. m. in Duluth Harbor. Steamer *Mataafa* had a hole punched in her port bow and lost an anchor, while steamer *Sacramento* was damaged so badly that she sunk almost immediately. Damage to steamer *Mataafa* estimated at $1,500; to steamer *Sacramento*, $15,000. Case investigated and it was found that the collision was caused by Hugh J. Regan, in charge of steamer *Mataafa*, violating Rule X of the pilot rules for the Great Lakes and their tributary waters, and inattention to his duties in failing to stop the headway of his vessel in time to avoid a collision. The license of Hugh J. Regan was suspended for 60 days from November 23.

November 1.—F. J. Kulwicky, a deck hand on steamer *Lyman C. Smith*, while engaged in removing hatch covers on the vessel at Two Harbors, Minn., fell into the hold and was killed. Case investigated, and it was found that the accident was caused by the hatch cover, on which Mr. Kulwicky was standing, being pulled out from under him by a misunderstanding of signals between the man superintending the work and the man running the engine that was used in pulling off the hatch covers. Case was dismissed.

November 28.—J. T. Kenny, master in charge of steamer *C. F. Curtis*, was charged with alleged negligence and inattention to his duties in not having life-preservers properly distributed on the vessel. Case investigated and dismissed.

SIXTH SUPERVISING DISTRICT.

LOCAL DISTRICT OF LOUISVILLE, KY.

January 3.—Reported the gasoline boat *Messenger*, 30 gross tons, and Frank Rounds, owner, to the United States surveyor of customs at Evansville, and district attorney at Indianapolis, Ind., for being navigated between Owensboro, Ky., and Rockport, Ind., carrying freight and passengers for hire, from December 11 to 25, 1907, inclusive, in violation of sections 4417, 4421, and 4426, Revised Statutes. The first inspection of the boat was begun on December 10, 1907, but not completed until December 27, 1907, for reason of deficiency in equipments.

January 3.—Reported the gasoline boat *Ben R*, 24 gross tons, and Frank Rounds, owner, to United States surveyor of customs at Evansville, and district attorney at Indianapolis, Ind., for being navigated and carrying freight and passengers for hire between Owensboro, Ky., and Rockport, Ind., from December 26, 1907, to January 2, 1908, without being inspected, in violation of section 4426, Revised Statutes.

January 14.—Charges were preferred against the gasoline boat *Ben R*, 24 gross tons, and Frank Rounds, owner, and reported to the United States surveyor of customs at Evansville, and district attorney at Indianapolis, Ind., for having been navigated between Owensboro, Ky., and Rockport, Ind., carrying freight and passengers for hire, from January 2 to 12, 1908, inclusive, without being inspected, in violation of section 4426, Revised Statutes.

January 16.—Investigated, at Madison, Ind., the charges preferred against William Littrell, master and pilot, on November 26, 1907, for being intoxicated while on duty on steamer *Alys Gray*, in violation of sections 4439 and 4442, Revised Statutes. The accused was found guilty and his license was suspended for 30 days.

February 20.—The local inspector of hulls visited the gasoline boat *Messenger*, 30 gross tons, at Owensboro, Ky., and found her being navigated, carrying freight and passengers for hire, without having on board a certificate of inspection, in violation of sections 4417, 4421, and 4426, Revised Statutes. The boat and owner, Frank Rounds, were reported to the United States surveyor of customs at Evansville, and district attorney at Indianapolis, Ind., on February 22, 1908.

March 5.—Lee Lee, colored deck hand on steamer *Gazelle*, fell overboard and was drowned while the steamer was being loaded at Owensboro, Ky., wharf boat. Every effort was made to save him, but without avail.

March 26.—Owing to carelessness on part of the pilot in charge, the steamer *Donca* was permitted to leave the channel of the Ohio River near Louisville, Ky., and to run aground. Damage to steamer and cargo, $500. On May 4 the second-class pilot's license of Edward M. Mason, pilot in charge, was suspended for 15 days; violation of section 4442, Revised Statutes.

April 12.—While steamer *Reba Reeves*, with barge of coal in tow, was entering lock No. 3, Kentucky River, the swift cross current, due to big local rise, caused the head of the barge to strike the cribbing, sinking the barge. Loss, $1,000.

June 30.—Steamer *Park City* collided with lower curb at lock No. 8, Kentucky River, tearing off starboard guard from stem back for a distance of 15 feet, also breaking 1 plank at top of stem. Damage estimated at $100.

July 3.—The gasoline boat *Ben R*, 24 gross tons, Frank T. Rounds, owner, was reported to the United States surveyor of customs, Evansville, and district attorney at Indianapolis, Ind., for violation of sections 4417, 4421, and 4426, Revised Statutes, being navigated and carrying passengers for hire without being inspected and certificated, between Owensboro, Ky., and Tell City, Ind., on June 28.

July 20.—The wheel shaft of steamer *Chaperon* broke just after leaving lock No. 6, Green River. No other damage done and no one injured.

September 2.—A collision occurred between the steamer *Helen M. Gould* and the gasoline boat *Madison* near Jobsons Landing, Ohio River. The cause of collision was investigated on September 14 and 15, and the evidence was such that charges were preferred against John Fresh, pilot in charge of the gasoline boat *Madison*. Damage slight.

September 11.—Charges were preferred against William Littrell, master and pilot, for intemperance on various dates during the month of August, 1908; violation of section 4442, Revised Statutes. Charges were investigated on September 25, and the accused found guilty and his license was suspended for 30 days.

September 16.—Charges were preferred against John Fresh, second-class pilot, for violation of Rule I, pilot rules, on September 2, 1908, causing a collision between the steamer *Helen M. Gould* and the gasoline boat *Madison*. The accused submitted his case on the evidence taken in the investigation of the cause of the collision and his license as second-class pilot was suspended for 30 days.

November 1.—While out of commission and lying at the bank at Broadway Hollow, Ohio River, opposite Madison, Ind., the steamer *Donca* sprang a leak during the night and sunk. No watchman on steamer at the time. Steamer has been raised. Estimated loss, $1,700.

November 20.—Charges were preferred against Joseph Hurst, master and pilot, for intemperance and misconduct on November 16; violation of sections 4439 and 4442, Revised Statutes. On December 11 the accused pleaded guilty to the charges and his license as master and pilot was suspended for 30 days.

December 15.—Charges were preferred by J. W. R. King against the gasoline boat *White Dove*, Elmer Turner, managing owner, for navigating without having on board a licensed pilot; violation of section 4438, Revised Statutes. Case investigated at Madison, Ind., on December 23, and Elmer W. and John T. Turner, owners of gasoline boat *White Dove* pleaded guilty to the above violation. On December 28 the gasoline boat and owners were reported to the United States surveyor of customs at Louisville, Ky.

December 28.—J. W. Turner was this day reported to the United States surveyor of customs at Louisville, Ky., for acting as pilot on gasoline boat *White Dove* on November 27, 1908, without being duly licensed by the local inspectors of steam vessels; violation of section 4438, Revised Statutes.

LOCAL DISTRICT OF EVANSVILLE, IND.

January 25.—The United States local inspectors preferred charge of intemperance against Joseph A. Fisher, master and pilot on steamer *Norway*, for violating sections 4439 and 4442 of the Revised Statutes. The accused personally appeared January 25, acknowledged his guilt, and his license was suspended for 120 days.

February 25.—Frank Smith, a deck hand on steamer *Pacific No. 2*, fell overboard and was drowned while the steamer was en route down the Mississippi River near Cairo, Ill.

March 12.—Otto Pritchett, a colored deck hand on steamer *Joe Fowler*, fell overboard and was drowned while the steamer was lying at the wharf at Evansville, Ind.

March 23.—Charges were preferred against Albert W. Hunt, first-class pilot, for violating section 4442, Revised Statutes, intemperance, on March 16 and 17. Case was investigated April 7, but the evidence did not sustain the charge and the case was dismissed.

April 30.—Charges were preferred against James Burnett, master and pilot on steamer *Bowling Green*, for violating sections 4439 and 4442, Revised Statutes, intemperance, on April 27. The accused personally appeared and acknowledged his guilt and his license was suspended for 30 days.

May 6.—Charges were preferred by William N. Williams, master of steamer *Evansville*, against Pryor Wall, operator of motorboat *Annie Bell*, for crowding on the course of the steamer *Evansville* after having given her the right to pass by answering with the proper signals, on April 19, in violation of Rule VIII of the pilot rules. Case was investigated May 13, but the evidence did not sustain the charge and case was dismissed.

May 11.—Charges of intemperance were preferred against Albert W. Hunt, first-class pilot. Violation of section 4442, Revised Statutes, May 9 and at various other times. May 11 the accused appeared in person in answer to said complaint and his license was revoked.

June 16.—Charges were preferred by Samuel G. Smith, master of steamer *Bowling Green*, against Claude G. Timmons, assistant engineer, for violating section 4441, Revised Statutes, intemperance, June 15 and 16. Case was investigated July 10. The accused acknowledged his guilt and his license was revoked.

August 8.—Edward Campbell, an employee, fell overboard from the steamer *Major Slack* while en route down the Ohio River, near Grand Chanin, Ill., and was drowned. All efforts to rescue him were without avail.

August 28.—Steamer *Penguin*, while lying at the bank at Evansville, Ind., out of commission, was totally destroyed by fire, the origin of which is unknown. Value, $6,000. No lives lost.

September 21.—Steamer *Ingleside*, while lying at the bank near Caseyville, Ky., caught fire and burned. No lives lost. Damage to property $4,000.

September 27.—Collision occurred between steamer *Evansville*, William N. Williams, master, and pleasure motorboat *Elsie*, at Evansville, Ind., resulting in the loss of 1 life. October 7 the collision was investigated, and the evidence showed that it was caused by reckless navigation on the part of the persons in charge of the motorboat *Elsie*. The officers of steamer *Evansville* were exonerated.

October 2.—Charges were preferred against William O. Boos, pilot and officer in charge of the motorboat *Kentucky*, for violation of sections 4465 and 4466, Revised Statutes, carrying a greater number of passengers than allowed by the certificate of inspection and excursion permit on August 26. Case investigated October 7, and the accused pleaded guilty and his license as second-class pilot was suspended for 15 days.

October 7.—John O. Williamson, managing owner, admitted that a greater number of passengers than allowed by the certificate of inspection and excursion permit were carried on the motorboat *Kentucky* on August 26. The vessel and owners were reported to the United States district attorney, Danville, Ill., and United States surveyor of customs, Paducah, Ky., for prosecution.

October 14.—Steamer *Egon*, while en route up the Mississippi River, near Birds Point, Mo., hit some hidden obstruction and sunk. No lives lost. Damage to property estimated at $500. Steamer raised, placed on ways, and repaired.

October 17.—Shelby Stevenson, a colored deck hand, fell overboard from excursion barge *Princess*, in tow of steamer *Emma*, while lying at the wharf at Evansville, Ind., and was drowned before assistance could reach him.

November 7.—Burt Brown, a colored deck hand, fell overboard from the steamer *City of Saltillo* while lying at the wharf at Cairo, Ill., and was drowned before assistance could reach him.

November 30.—The license of Arthur A. Peck, master and pilot and officer in charge of steamer *Scotia*, was suspended for 30 days for negligence; violation of section 4442, Revised Statutes, having navigated said steamer on an expired certificate of inspection on November 23, 24, and 25, in violation of sections 4417 and 4418, Revised Statutes.

November 30.—Steamer *Scotia* was reported to the United States district attorney, Danville, Ill., and United States surveyor of customs, Cairo, Ill., for navigating on an expired certificate of inspection November 23, 24, and 25, in violation of sections 4417 and 4418, Revised Statutes.

December 2.—The license of Martin Fitchner, master and pilot, was suspended for 30 days for violation of sections 4439 and 4442, Revised Statutes, and section 50, Rule V, general rules and regulations, navigating steamer *Liberty* in a damaged and unseaworthy condition and with insufficient equipment during the month of November.

December 10.—Suspended for 30 days the license of Alfred Pendle, first assistant engineer on steamer *Clarence Thorn*, for negligence; violation of section 4441, Revised Statutes. This violation came under the personal observation of the local inspectors.

December 10.—Suspended for 30 days the license of Zedaw Bradshaw, pilot and officer in charge of steamer *Clarence Thorn*, for negligence; violation of section 4442, Revised Statutes. This violation came under the personal observation of the local inspectors.

December 10.—Suspended for 30 days the license of Charles Youngman, pilot and officer in charge of motorboat *Mary A*, for negligence; violation of section 4442, Revised Statutes. This violation came under the personal observation of the local inspectors.

LOCAL DISTRICT OF NASHVILLE, TENN.

January 15.—Charges were preferred against John R. Maples, master and pilot, for navigating steamer *Jane Austin* in excess of the hours allowed by law for a single crew, in violation of sections 4439 and 4442, Revised Statutes, and section 6, Rule IX, rules and regulations, on January 4 and 5. Case was investigated at Knoxville, Tenn., February 14, and charges were not sustained and the case was dismissed.

January 20.—Charges were preferred against Daniel Reeb, first assistant engineer, for negligence, violation of section 4441, Revised Statutes, on January 15. On January 29 the accused pleaded guilty to charges and submitted his case. His license was suspended for 40 days.

March 1.—Thomas Jordan, colored deck hand, fell overboard from steamer *R. Dunbar* and was drowned while steamer was lying at the bank at Taylors Branch, Tenn., on Cumberland River. Two life lines were immediately thrown to him, and a lifeboat lowered, but he sunk before assistance could reach him.

March 10.—Aaron Hodges, colored deck hand on steamer *C. M. Pate*, fell overboard and was drowned while the steamer was lying at the bank at the mouth of Brimstone Creek, Cumberland River. Two boats were immediately lowered and manned, but he sunk before assistance could reach him.

March 10.—Charges were preferred against Alfred N. Mason, chief engineer of steamer *Reaper*, for negligence, violation of section 4441, Revised Statutes, on March 1. On March 11 the accused pleaded guilty to charges and submitted his case. His license was suspended for 30 days.

March 31.—R. L. Roberts, deck hand on steamer *Castalia*, fell overboard near Canton, Ky., on Cumberland River, and was drowned. A lifeboat was lowered and manned, but the unfortunate man sunk before help could reach him.

April 20.—Charges were preferred against John H. Ferguson, chief engineer, for intemperance, violation of section 4441, Revised Statutes, on April 9. By letter to this board, dated May 16, the accused pleaded guilty to charges and submitted his case. His license was suspended for 90 days on May 18.

April 27.—Charges were preferred against Albert J. Cowlishaw, first-class pilot, for intemperance, violation of section 4442, Revised Statutes, on April 22. On May 18 the accused pleaded guilty to charges and submitted his case, and his license was suspended for 6 months.

June 16.—The license of James H. Christley, first assistant engineer, and engineer in charge of steamers of 100 gross tons and under, was suspended for 90 days for intemperance, violation of section 4441, Revised Statutes. Violation occurred on shore and came under the immediate observation of the local inspectors at Nashville, Tenn., on June 11.

June 23.—Charges were preferred against Fred Huskey, second-class pilot, for intemperance, violation of section 4442, Revised Statutes, on June 11. On June 26, by letter to this board, the accused pleaded guilty to charges and submitted his case. His license was suspended for 90 days on June 30.

July 10.—Charges were preferred against William W. Tucker, chief engineer, for intemperance, violation of section 4441, Revised Statutes, on July 4. Charges have not been investigated for reason of inability to locate the accused.

November 5.—A flue in the boiler of steamer *Nellie* collapsed at Paducah, Ky., slightly scalding the fireman. Cause of accident was investigated at Paducah, Ky., November 24, and from the evidence on file in this office, as well as a personal examination of boiler, we are of the opinion that accident was caused by a defective flue, and through no carelessness or negligence of the engineer in charge of the steamer.

LOCAL DISTRICT OF MEMPHIS, TENN.

January 25.—Investigated charges filed April 15, 1907, by L. J. Beach, master of steamer *DeKoven*, against Charles S. Rains, first assistant engineer, for leaving said steamer January 21, 1907, in violation of sections 4441 and 4449, Revised Statutes. Being unable to locate Mr. Rains until January 9, to serve notice on him, investigation of the charges could not be held, the evidence obtained failing to sustain the charge, and case was dismissed.

January 25.—Investigated charges of assaulting him with intent to commit murder, on December 22, 1907, filed by John Leonard, master of steamer *S. S. Brown*, on December 24, 1907, against Leander Huff, a licensed mate, who was acting as watchman on said steamer. The evidence sustaining the charge, his license as mate was revoked for violation of section 4440, Revised Statutes.

January 27.—While the steamer *Whisper* was assisting the steamer *Harry Brown* to dislodge grounded barges at Richardson landing, Tenn., the wheel crank of the steamer *Harry Brown* accidentally struck the wheel and cylinder timber of the steamer *Whisper*, breaking them. Damage, $300. No one injured. Collision accidental as per statement received from each steamer.

February 1.—Steamer *J. B. Finley*, en route up the Mississippi River, when at Riverton Landing, Miss., broke her pitman straps, causing damage to her machinery of $2,000. No one injured.

February 4.—John Foley, deck passenger on steamer *City St. Joseph*, fell overboard and drowned at Picketts Landing, Ark. Lifeboat was lowered and every effort made to save him, but could not.

February 19.—The cabin of the steamer *Pilot* was burned while said steamer was tied up at Little Rock, Ark. Cause of fire unknown. Damage, $200. No lives lost.

February 20.—The steamer *Mariner*, en route up the Mississippi River, when in the harbor of Memphis, Tenn., shoved her tow into the wheel of the steamer *Herman Paepcke*, damaging her wheel to the extent of $250. No lives lost. Accident unavoidable.

February 28.—Steamer *Bart E. L. Molo*, while tied up in the harbor of Hickman, Ky., sunk. Steamer was raised and repaired. Damage to vessel, $794.02. No lives lost.

February 29.—Charles Bergland, a deck hand on steamer *McDougall*, accidentally fell overboard at Rosa Lee Landing, Ark., and drowned. Boat was stopped and search made, but he could not be found.

March 1.—Barney Lutz, deck hand on steamer *Mariner*, fell overboard near Peters Landing, Ark., and drowned.

March 28.—Charges were filed against owners of steamer *Gopher* and J. S. Raybon, master, for navigating said steamer on Arkansas River without a licensed pilot over said route. Charges were not sustained at investigation on May 20, and the case was dismissed.

February 14.—While steamer *Robt. Taylor* was lying at Coraopolis, Pa., on the Ohio River, she was struck by ice, mashing in her hull and causing vessel to sink about 6.30 a. m. No person injured. Steamer was raised. Estimated damage, $2,000.

February 27.—Charges were preferred against Ulysses K. Riggs, chief engineer of steamer *Ironsides*, for intemperance while acting under authority of his license on January 28, 1908. The charges were not sustained upon investigation, and the case was dismissed.

March 7.—Steamer *Stella Moren*, descending with 2 loaded coal boats in tow, while attempting to enter lock No. 2, Monongahela River, on a high stage of water, was carried over the dam by the current and wrecked, resulting in the loss of the lives of John Cox, chief engineer, John Bush, a fireman, and "Red" Lawrence, a deck hand. Steamer was a total loss, estimated at $13,200. Accident was investigated and the crew exonerated from all blame.

March 13.—Steamers *Volunteer* and *Dave Wood*, both ascending the Ohio River, with a fuel flat hitched on the head of each steamboat, collided below Vanport, Pa., slightly damaging the flat in tow of the former steamer. No injury to person.

March 17.—While the steam tug *John Dippel* was dropping a loaded barge underneath a tipple, at the foot of Sixteenth street, Pittsburg, on the Allegheny River, she was carried under an empty barge by the current and sunk. Crew escaped safely. Tug was raised and put in commission. Estimated damage, $500.

April 2.—While steamer *Diamond* was taking an empty flat from a landing at the foot of Locust street, Pittsburg, Pa., on the Ohio River, the flat was driven ashore by the wind, colliding with the cabin of the passenger yacht *Bob Swan*. Damage slight. No person injured.

April 3.—Charges were preferred against Capt. Jerry W. Gumbert, a licensed master and pilot, for navigating steamer *Return* without a licensed acting mate from March 6 to 25. Upon investigation the charges were not sustained and the case was dismissed.

April 20.—Passenger steamers *Gazelle* and *Wabash*, both ascending the Monongahela River, collided above Martin, Pa., about 6 p. m., slightly damaging the latter steamer. No person injured.

May 10.—The steamer *Vulcan*, ascending with an empty tow, collided with the loaded tow of the steamer *Twilight*, at the landing at Duquesne, Pa., Monongahela River, slightly damaging the tow of the former steamer. No injury to person.

May 12.—While steamer *Diamond*, with a tow, was ascending the Allegheny River in the Pittsburg Harbor, about 10.30 p. m., a small motor boat, without any visible light, collided with the head of the tow. It was reported that the motor boat contained 2 persons, namely, Jesse K. Hise and Anna Drexel, both of whom were drowned.

June 7.—While steamer *Audrey* was descending the Allegheny River, in the Pittsburg Harbor, with an excursion barge in tow, about 7.20 p. m., Anthony Ratkus, a passenger on the barge, fell overboard and was drowned.

June 14.—Steamer *J. C. Risher*, descending with a loaded tow, and passenger steamer *Island Queen*, ascending with an excursion on board, collided in the Pittsburg Harbor, Monongahela River, about 11.30 p. m., slightly damaging the latter steamer. No person injured. Estimated damage, $100.

June 19.—Richard Lowther preferred charge of intemperance on June 10 against John W. Burke, a licensed motor operator, while piloting the motor boat *Ruth* with an excursion party on board. Case was investigated and dismissed, the charge not being sustained.

June 24.—The owners of the excursion barge *Beauty* were this day reported to the United States district attorney and collector of customs at Pittsburg, Pa., for navigating the barge on June 13 and 14, after her inspection certificate had expired, in violation of sections 4417 and 4492, Revised Statutes.

July 4.—While the passenger steamer *Hazel L. Watson* was descending the Monongahela River, below Crowthers mines, Pennsylvania, between 1 and 2 p. m., George Davis, a passenger, fell overboard and was drowned. The body was recovered.

July 5.—While steamer *Little Fred* was tied up at Glenwood landing, Pittsburg, Pa., on the Monongahela River, with a watchman on board, she took water through a siphon in her hull and sunk about 12.20 a. m. No person injured. Steamer was raised and put in commission. Estimated damage, $1,200.

July 29.—While passenger steamer *I. C. Woodward* was lying at Eclipse mines, above California, Pa., on the Monongahela River, coaling, about 8.30 p. m., James George, a colored cabin boy, was drowned while in bathing.

August 4.—While steamer *Ella B* was lying at the docks at Dravosburg, Pa., on the Monongahela River, with a watchman on board, she took water and sunk about 9 p. m. No injury to person. Steamer was raised and put in commission. Estimated damage, $500.

August 17.—Canceled the certificate of inspection of the excursion barge *Beauty* for violation of sections 4417 and 4492, Revised Statutes, and section 4 of Rule VIII, general rules and regulations.

October 24.—While steamer *Hunter No. 2* was landing at the foot of Fifty-first street, Pittsburg, Pa., on the Allegheny River, she struck a submerged piling, knocked a hole in her hull, and sunk. No person injured. Steamer was raised and put in commission. Estimated damage, $1,200.

November 23.—The body of John R. Barrows, engineer of steamer *W. T. Smoot*, was recovered from the Allegheny River beside the boat, at Pittsburg, Pa., his head crushed and his money missing, and he is supposed to have been murdered. The steamer was laid up.

LOCAL DISTRICT OF POINT PLEASANT, W. VA.

January 10.—Rendered decision in case of investigation as to cause of collision between steamer *Henry M. Stanley* and U. S. dredge *Oswego*, which occurred at the foot of Gallipolis Island, Ohio River, September 3, 1907. Suspended the master and pilot license of Elias L. Argo, pilot of steamer *Henry M. Stanley*, for a period of 54 days for unskillfully navigating his steamer. Violation of sections 4442 and 4450, Revised Statutes. Mr. Argo appealed his case to the supervising inspector, seventh district, who reduced his suspension to a period of 27 days.

February 9.—Steamer *Jewel*, while in winter quarters near the mouth of the Muskingum River, was caught on gorged ice, and when pulled off careened and sunk in about 12 feet of water. No one injured. Damage to property, unknown.

March 5.—Steamer *Gondola*, while navigating the Ohio River opposite Kanauga, Ohio, broke her main water-wheel shaft. Estimated amount of damage, $500.

March 6.—The chief engineer's license of Robert T. Cox was suspended for a period of 30 days for negligence in not maintaining in good and efficient condition the fire pumps of steamer *J. Q. Dickinson*, while acting as chief engineer of said steamer. Violation of section 4441, Revised Statutes. Mr. Cox appealed to the supervising inspector, seventh district, who sustained the action of the local inspectors.

March 6.—The master and pilot's license of James F. Calvert, of steamer *J. Q. Dickinson*, was suspended for a period of 30 days for carrying baled hay on said steamer without being covered with tarpaulin, in violation of section 4472, Revised Statutes, and section 5, Rule IV, rules and regulations. Case reported to surveyor of customs, Wheeling, W. Va., and United States district attorney, Huntington, W. Va. This violation came under the inspector's immediate observation. Mr. Calvert appealed to the supervising inspector, seventh district, who sustained the action of the local inspectors.

March 6.—The master and owner of steamer *Evergreen* were reported to surveyor of customs, Wheeling, W. Va., and United States district attorney, Huntington, W. Va., for carrying baled hay on said steamer without being covered with tarpaulin, in violation of section 4472, Revised Statutes, and section 5, Rule IV, rules and regulations. This violation came under the inspector's immediate observation.

March 6.—The master and pilot's license of Miles H. Brown, of steamer *Carrie Brown*, was suspended for a period of 30 days for carrying baled straw on said steamer without being covered with tarpaulin, in violation of section 4472, Revised Statutes, and section 5, Rule IV, rules and regulations. Case also reported to surveyor of customs and United States district attorney, Cincinnati, Ohio. This case came under the inspector's immediate observation.

March 6.—The master and owners of steamer *Neva* were reported to surveyor of customs, Wheeling, W. Va., and United States district attorney, Huntington, W. Va., for carrying baled hay on said steamer without being covered with tarpaulin, in violation of section 4472, Revised Statutes, and section 5, Rule IV, rules and regulations. This case came under the inspector's immediate observation.

March 11.—The first-class pilot license of George T. Skaggs was suspended for 30 days for negligence while acting as first-class pilot of steamer *Daniel;* violation of section 4442, Revised Statutes.

March 11.—The master and pilot's license of Clermont C. Green was suspended for 30 days on account of the fire apparatus and equipment of steamer *Bessie Smith* being found in an unlawful condition; violation of section 4439, Revised Statutes.

March 11.—The first assistant engineer's license of Daniel B. Long was suspended for 30 days for negligence while acting in the above capacity on steamer *Daniel;* violation of section 4441, Revised Statutes.

March 11.—The master and pilot's license of Henry R. Kraft was suspended for 30 days while acting as master and pilot of steamer *Bessie Smith;* violation of section 4439, Revised Statutes.

March 11.—The special engineer's license of William S. McBee was suspended for 30 days for negligence in not maintaining in good and efficient condition the steam fire pump and fire fighting apparatus of steamer *Daniel;* violation of section 4441, Revised Statutes.

March 16.—The master and pilot's license of James H. Spencer was suspended for 30 days for violation of pilot Rule I, while acting as pilot of steamer *Carrie V.*

March 25.—While steamer *Columbia* was navigating the Ohio River near Marietta, Ohio, in the vicinity of lock No. 18, she struck the wall of said lock and sunk. Loss, $5,000.

April 1.—Steamer *J. T. Hatfield,* while navigating the Ohio River about 1 mile below Gallipolis, Ohio, broke her pitman straps on starboard engine, causing the breaking of forward and aft cylinder heads, piston rod, and piston heads. Amount of damage sustained, $200.

April 1.—Steamer *Greenwood,* while navigating the Ohio River, 2 miles above Proctorville, Ohio, broke her port cylinder timber. Estimated amount of damage, $100.

May 9.—While steamer *Kanawha* was lying at the wharf boat at Marietta, Ohio, John Watkins, a colored roustabout, slipped on the gang plank and fell into the river and drowned. All efforts to save him proved of no avail.

June 1.—Steamer *J. T. Hatfield,* while navigating the Ohio River at Chambersburg, Ohio, broke her shaft. Amount of damage, $600.

June 26.—Steamer *Neva,* while lying at Point Pleasant (W. Va.) Machine Company's landing, caught fire in engine room from an unknown cause. Fire was extinguished by watchman. No damage done.

June 28.—While ferry steamer *Nina Paden* was crossing the Ohio River at Parkersburg, W. Va., A. J. Groah, of West Union, W. Va., a passenger, deliberately jumped overboard and was drowned. All efforts to save him were futile. Body recovered.

July 14.—Steamer *M. L. Thornton,* while navigating the Ohio River at Greenbottom Chute, near Crown City, Ohio, broke her wrist on port side and knocked both heads out of port cylinder, and lost pitman and crosshead in river.

July 15.—Ferry steamer *Boone No. 4* broke her shaft at Kanauga landing, Ohio. Amount of damage, $50.

July 16.—Charges were preferred against James W. McAllister, chief engineer of steamer *Oriole,* for obstructing the safety valves of said steamer while acting as chief engineer, in violation of section 4437, Revised Statutes. Case under investigation.

July 20.—Steamer *Lucie Marmet,* while navigating the Ohio River about 1 mile above Portsmouth, Ohio, broke her main shaft, causing damage to property of $1,000. No one hurt.

July 26.—Steamer *Neva,* while lying at Buffalo, W. Va., Great Kanawha River, was totally destroyed by fire, caused by a lamp explosion in the office of said steamer. Total loss, $7,500. No one hurt.

August 3.—Steamer *M. L. Thornton,* while navigating the Great Kanawha River just below lock No. 7, broke a wrist on starboard side, and forward cylinder head on starboard side. Amount of damage, $25.

August 10.—As the steamer *Robert P. Gillham,* with a tow of barges, was entering the upper entry of lock No. 9, Great Kanawha River, David Johns, an old man, in attempting to cross ahead of the tow in a skiff, was caught between the barges and lock wall, and was so badly injured internally that he died within a few minutes after being lifted out of the water.

August 17.—Steamer *J. T. Hatfield,* while navigating the Ohio River at Eightmile Island, W. Va., struck a rock and sunk. She was immediately raised and taken to docks for repairs. Amount of damage, $1,200.

EIGHTH SUPERVISING DISTRICT.

LOCAL DISTRICT OF DETROIT, MICH.

January 3.—At 5.30 a. m., while lying at the dock of the Great Lakes Engineering Works, Ecorse, Mich., the steamer *George R. Hand* was totally destroyed by fire. Value of steamer, $4,500. Cause of fire, unknown.

January 22.—Upon completion of the investigation of the collision between the steamers *Excelsior* and *Presque Isle* on October 5, 1907, it was found that A. A. Stannard, master of the steamer *Excelsior,* was guilty of careless navigation, failure to keep a proper lookout, and violation of Rule VIII of the pilot rules; and William H. Hoffman, master of the steamer *Presque Isle,* was found guilty of violating Rule VIII of the pilot rules. Their licenses were suspended for a period of 30 days, effective January 25.

January 22.—Upon investigation of the charges preferred against J. P. Minskey, master of the steamer *R. L. Ireland*, alleging misbehavior in taking the wrong channel at Limekiln Crossing, Detroit River, on December 7, 1907, it was found that the charge was not sustained by the evidence, and the case was dismissed.

January 22.—Upon completion of the investigation of the collision between the steamer *Selwyn Eddy* and barge *Maida*, in tow of the steamer *C. R. Van Hise*, it was found that William Greening, master of the steamer *Selwyn Eddy*, had violated the provisions of Rules III and V of the pilot rules, and had not kept a proper lookout, and his license was suspended for 45 days, effective January 23. Fred C. Watson, master of the steamer *C. R. Van Hise*, was found guilty of violating Rule II of the pilot rules, and his license was suspended for 20 days, effective January 23. C. S. Furey, master of the steamer *Mauch Chunk*, which was passing the steamer *C. R. Van Hise* at the time, was found guilty of violating Rule III of the pilot rules, and his license was suspended for 10 days, effective January 23. Captain Furey appealed to the supervising inspector of the eighth district, who sustained the decision of the local inspectors.

February 21.—At 9.45 a. m., while working in the heavy slush ice in the vicinity of the car slips at the foot of Nineteenth street, Detroit, Mich., the steamer *Pere Marquette 14* collided with the British steamer *Lansdowne*. No damage to the steamer *Pere Marquette 14*.

March 3.—Upon investigation of the bursting of a stop valve on the steamer *Detroit*, December 12, 1907, it was found that the accident was caused by the uneven thickness of the valve. No fault was found with the members of the crew, and the case was dismissed.

March 4.—Upon investigation of the collision between the steamer *City of Detroit* and the barge *Harold*, August 22, 1907, it was found that there had been no willful violation of the pilot rules; that the collision had been caused through an error of judgment on the part of A. J. McKay, master of the steamer *City of Detroit*. After censuring Captain McKay, the case was dismissed.

March 5.—Upon completion of the investigation of the collision between the steamers *Henry W. Oliver* and *John Ericsson*, on August 20, 1907, it was found that C. H. Francke, master of the steamer *Henry W. Oliver*, had failed to keep a proper lookout and had violated the provisions of Rule VIII of the pilot rules, and his license was suspended for a period of 20 days, effective March 7.

March 24.—Upon completion of the investigation of the collision between the steamers *John M. McKerchey* and *Mary*, on December 3, 1907, it was found that John Little, master of the *John M. McKerchey*, had failed to keep a proper lookout, and that John J. Pearson, master of the *Mary*, had violated Rules I and II of the pilot rules, and their licenses were suspended for a period of 20 days, effective March 26.

March 31.—Upon completion of the investigation of the collision between the steamers *Queen City* and *John W. Moore*, on October 13, 1907, it was found that John L. Bradshaw, master of the steamer *John W. Moore*, had violated the provisions of Rule VIII of the pilot rules, and his license was suspended for a period of 30 days, effective April 1. It was also found that Edward Sullivan, master of the steamer *E. Y. Townsend*, which passed the *John W. Moore* at this time, had violated Rules VIII, 21 and 22 of the pilot rules, and his license was suspended for a period of 45 days, effective April 1.

April 23.—While lying at the dock at Gibraltar, Mich., the steamer *May D* caught fire and was totally destroyed. Steamer valued at $2,800.

May 8.—While entering the Detroit River from Lake Erie, the air pump on the steamer *Clyde* gave out. The anchor was let go, and in pulling it in, the chain parted. Anchor valued at $140.

May 28.—At 12 p. m., while lying at her dock at Detroit, Mich., the steamer *Helen* was struck by lightning and burned, becoming a total loss. Steamer valued at $8,200.

June 21.—The steamers *City of Alpena* and *Britannia* collided in the Detroit River, abreast of Detroit, Mich. Damage to the *City of Alpena*, $500; to the *Britannia*, $150. Upon investigation of this collision it was found that R. E. Ferguson, master of the steamer *Britannia*, had not skillfully navigated his steamer at the time of the collision, and his license was suspended for a period of 60 days, effective September 4. Upon appeal, the suspension was modified to 30 days.

June 26.—Charges were preferred against R. E. Ferguson, master of the steamer *Britannia*, for alleged violation of Rule VIII of the pilot rules. The testimony obtained at the investigation did not bear out the charge, and the case was dismissed.

June 29.—At 7.18 p. m. the pin in the forward end of the walking beam of the steamer *Owana* broke, damaging the machinery to the extent of about $500.

July 10.—At 7.30 p. m., while proceeding down the River Rouge, the steamer *John M. McKerchey* collided with the Michigan Central Railroad bridge, sustaining damage estimated at $1,800.

July 12.—Charges were preferred against John Davis, master of the steamer *Chicago*, for alleged violation of the pilot rules and reckless navigation in passing the steamer *Masaba* at Limekiln Crossing, Detroit River. Case investigated December 28, 1908. Captain Davis found guilty as charged, and his license suspended for a period of 6 months, effective December 31.

July 21.—Robert McDowell, master of the steamer *Alexis W. Thompson*, preferred charges against one of the Michigan Central Railroad car ferries for alleged violation of the pilot rules. Investigation pending.

July 22.—Charges were preferred against Harry Babcock, operator of the motor boat *Paddy Denmarsh*, for reckless navigation and intemperance. Upon investigation, charges were not sustained, and the case was dismissed.

July 25.—Upon investigation of an alleged violation of the pilot rules on the part of Alex. J. McKay, master of the steamer *City of Cleveland*, it was found that Captain McKay and Stanton J. Markle, master of the steamer *Frank W. Hart*, had violated Rules II, X, and XI of the pilot rules. They were charged with such violation by the local inspectors, and upon trial the charges were sustained. Their licenses were suspended for a period of 45 days, effective December 21.

July 26.—At 6.35 a. m., the steamer *O. E. Parks* collided with the British steamer *E. B. Osler* near the lower entrance to the St. Clair Flats Canal, due to the suction of the *E. B. Osler* in passing the *Parks*. Damage to the *O. E. Parks*, $249.

July 30.—At 1 a. m. the steamer *H. E. Runnels* collided with a barge in tow of an unknown steamer, near the Limekiln Crossing, Detroit River. No damage sustained by the *H. E. Runnels*.

August 1.—The steamer *H. W. Hawgood* collided with the British steamer *Strathcona* near the entrance to the St. Clair Flats Canal. No damage to the *H. W. Hawgood*.

August 2.—While lying at the dock at the foot of Dubois street, Detroit, Mich., the steamer *P. B. Luyster* was damaged by fire to the extent of about $1,200.

August 24 to September 6.—Charges were preferred against George Best, master of the steamer *Benton*, alleging reckless navigation. Case investigated September 23. It was found that Captain Best had violated the provisions of section 23, Rule V, and section 5, Rule VI, of the general rules and regulations, and his license was suspended for a period of 15 days, effective October 13.

August 26.—The steamer *John M. McKerchey* collided with the British steamer *Ontario*, sustaining damage estimated at $175.

August 31.—While en route from Buffalo to Detroit, a small leak was discovered underneath the cover of the high-pressure cylinder head of the steamer *Western States*. Upon removing the cover, the cylinder head was found to be cracked. Damage, $200.

September 5.—Capt. Peter Delpier of the steamer *Hornet* was charged with the improper use of the searchlight of said steamer. Case investigated. Found that the violation was not willful, and the case was dismissed with a reprimand to Captain Delpier.

September 6.—Complaint was entered by Charles H. Wilson, jr., master of the steamer *Panay*, against the master of the steamer *Maricopa* for alleged violation of the pilot rules. Investigation pending.

September 18.—The steamer *Benton* grounded at the foot of Belle Isle during smoky weather. Damage to the steamer estimated at $50.

September 25.—About 6.45 p. m. the steamer *John Otis* collided with the gasoline motor vessel *Lady B* in Lake St. Clair. No damage to the *John Otis*. Upon investigation it was found that the *Lady B* was entirely to blame for the collision, and the motor vessel was reported to the collector of customs at Detroit, Mich. During the investigation the fact developed that the lifeboat of the steamer *John Otis* was not in good condition at the time of the collision, and the license of Edward J. Donoghue, master, was suspended for a period of 10 days, effective December 1.

September 27.—While en route from Buffalo to Detroit a crack was found in the new high-pressure cylinder head of the steamer *Western States*. After making temporary repairs the steamer proceeded on its way to Detroit. Damage estimated at $250.

October 3.—Upon examining the port shaft of the steamer *City of Alpena*, a small crack was found. Amount of damage estimated at $3,000.

October 4.—During foggy weather the steamer *Briton* stranded near Amherstburg, Ontario, sustaining damage estimated at $1,000.

October 7.—About 11.15 p. m. the steamer *Lyman C. Smith* collided with the barge *McWilliams* in tow of the steamer *W. R. Stafford* in Lake St. Clair, due to the suction of the *Lyman C. Smith* in passing the barge *McWilliams*. No damage to the *Smith*.

October 13.—At 6.01 a. m. the ferry steamer *Ariel* collided with the British steamer *Energy* in the Detroit River, sustaining damage estimated at $500. Investigation pending.

October 17.—About midnight the steamer *Stephen M. Clement* stranded in Lake St. Clair. After lightering about 300 tons of ore the steamer was released and proceeded on its way. No damage to steamer.

October 23.—At 5 p. m. the steamer *F. L. Robbins* stranded in Lake St. Clair, on account of low water. After lightering 170 tons of ore the steamer was released without damage.

October 24.—At 3.15 p. m. the crank pin of the high-pressure cylinder of the steamer *Orion* broke, resulting in damage to the machinery amounting to about $500.

October 27.—At 9.30 p. m. the steamer *John Mitchell* scraped the whole length of her bottom on an obstruction which appeared to be of iron, in the Detroit River, opposite Detroit. Damage estimated at $3,000.

October 31.—At 5.20 a. m. the steamer *Adam E. Cornelius* struck some unknown obstruction abreast of Bar Point light-ship, Detroit River. No damage to steamer.

November 8.—The steamer *J. J. H. Brown* grounded at the lower end of the Detroit River, sustaining damage estimated at $5,000. Grounding alleged to have been caused by the suction of the steamer *Chicago* in passing the *Brown.*

November 8.—Charges were preferred against John Davis, master of the steamer *Chicago*, by F. D. Chamberlin, master of the steamer *J. J. H. Brown*, for alleged violation of Rules VIII and 25 of the pilot rules. Investigation pending.

November 12.—About 1.30 p. m. the steamer *William M. Mills*, stranded in the channel, a short distance above Bar Point light-ship, Detroit River, on account of low water. The steamer was released November 15 after lightering about 1,000 tons of ore. No damage to steamer.

November 14.—At 8.20 p. m. the steamers *Crete* and *John Duncan* came into colsion about midway between Mamajudy and Grassy Islands, neither vessel being damaged.

November 14.—Shortly after 6 p. m., while the steamer *Charles Weston* was at work on the stranded steamer *William M. Mills* at Bar Point, Detroit River, some unknown steamer collided with the *Charles Weston*, damaging the *Weston* to the extent of about $80. Capt. James A. Fleck of the steamer *Charles Weston* preferred charges against the unknown steamer for alleged violation of the pilot rules. After making every effort to ascertain the name of the unknown steamer we were unable to do so, and have accordingly dismissed the case.

November 17.—At 6.30 p. m. John Parker, a deck hand on the steamer *City of Alpena*, in leaving the boat, fell off the gang plank into the river between the steamer and the dock. He was immediately rescued and worked over until the arrival of an ambulance, but he died on the way to the hospital. It is presumed that he was under the influence of liquor at the time.

November 20.—At 5 a. m. the steamers *H. Houghten* and *Emerald* came into collision, resulting in the sinking of the steamer *Emerald.* Amount of damage to the *Emerald*, $4,000; to the *H. Houghten*, $500. Investigation pending.

November 21.—The steamer *Alert* grounded on the rocks near Limekiln Crossing, Detroit River. Later she slipped off, breaking in two and sinking. Value of steamer, $51. Upon investigation it was found that this steamer had been navigated without an unexpired certificate of inspection on board. Case reported to the collector of customs at Detroit, Mich., and to the United States district attorney.

November 21.—The steamer *James B. Neilson* collided with the British steamer *City of Mt. Clemens*, resulting in the sinking of the latter. No damage to the *Neilson.* Investigation pending.

November 22.—Complaint was made against the steamer *Sylania* for failure to give name of steamer when asked to do so by the captain of the barge *Edwards*, after running through the towline of said barge. Investigation pending.

December 1.—The steamer *Alfred Mitchell* stranded in the channel at Bar Point, Detroit River, on account of low water. No damage to steamer.

December 5.—At 3.15 a. m. the steamer *Shaun Rhue*, with scow in tow, collided with Limekiln Crossing light-vessel *No. 65*, putting the light out. No damage to light-vessel or steamer. Upon investigation it was found that the collision was caused by the suction of the steamer *Sir Thomas Shaughnessy* in passing the *Shaun Rhue.* Case dismissed.

December 5.—Charges were preferred against the master of the steamer *Sir Thomas Shaughnessy* for alleged violation of the pilot rules in passing the steamer *Shaun Rhue* without proper signals. Investigation pending.

December 5.—At 1.25 a. m. the lighter *Rescue*, in tow of the steamer *Abner C. Harding*, collided with the Limekiln Crossing south light-vessel, damaging the light-vessel quite severely. Upon investigation it was found that the collision was caused by the inability of the tug *Harding* to pull the lighter *Rescue* away from the light-ship, after having been crowded over by 3 large steamers bound in the opposite direction. Case dismissed.

December 11.—The steamer *M. C. Neff* collided with the steamer *John M. McKerchey* in Lake St. Clair. Both steamers were bound across the lake, the *Neff* following in the wake of the *McKerchey*, on account of the heavy ice. The *McKerchey* encountered some particularly heavy ice and her speed was reduced considerably, and before the *Neff* could stop she collided with the *McKerchey*, damaging the latter to the extent of about $100. No damage to the *M. C. Neff*.

LOCAL DISTRICT OF CHICAGO, ILL.

February 5.—While lying at the dock at Chicago, Ill., the steamer *Harry C. Lydon* caught fire near the galley stovepipe, sustaining damage estimated at $550. Fire caused through the neglect of the watchman in failing to tend the fire after having left the draft open.

February 18.—While attempting to enter Waukegan Harbor during a severe snowstorm, the steamer *Anspach* was forced down by slush ice, filled from the top and sunk, with 2 members of her crew, who were drowned. Steamer is a total loss, amounting to $5,000.

February 21.—While lying at the dock at Chicago, Ill., loading freight, the steamer *Imperial* filled and sunk, caused by the cargo shifting. Steamer was afterwards pumped out and raised. Amount of damage, $50.

March 16.—While lying at her dock in the Chicago River, the steamer *I. W. Nicholas* was damaged by fire to the extent of about $1,600.

March 25.—While passing under Canal Street Bridge, the smokestack of the steamer *R. A. Seymour, jr.*, struck the bridge, and the lever of the smokestack used for raising and lowering same struck a man on board, breaking his leg. No damage to steamer.

April 25.—While lying at the dock at Peoria, Ill., the fishing steamer *Duchess* was sunk from some unknown cause. Steamer has since been raised. Amount of damage, $200.

April 27.—While being towed up the Chicago River the towline parted, causing the steamer *Niagara* to strike the barge *Mary McLaughlin*, damaging the steamer to the amount of about $75.

April 27.—While being towed by the steamer *Nashotah* the canal boat *Scott* was struck by the steamer *Oscoda*, staving a hole in the *Scott* and causing her to fill and sink. No damage to steamers *Nashotah* and *Oscoda*.

May 7.—The steamer *Kansas* collided with the steamer *City of Marquette*, near the north pier in the Chicago River. Collision due to rudder on steamer *Kansas* being out of order. Damage to the *City of Marquette* estimated at $200.

May 10.—While passing through Ninety-second Street Bridge, South Chicago, the steamer *Yale* collided with the bridge. No damage to the steamer.

May 11.—While the steamer *Robert Mills* was lying in the north branch of the Chicago River, having repairs made to boilers, a workman employed by the boiler shop fell from the platform erected near the boilers through a hatch into the hold, a distance of about 12 feet, sustaining severe injuries.

May 12.—While proceeding up the Chicago River, near Rush Street Bridge, the steamer *S. O. Neff* collided with the steamer *Niko*, sustaining damage estimated at $400.

May 18.—Mr. Charles A. Dalton was charged with making additions to his license, in violation of section 4445, Revised Statutes. Upon trial he was found guilty, and his license having already expired, he was refused a renewal. Case reported to the United States district attorney.

June 1.—Charges were preferred aginst Edward Comiskey, assistant engineer of the steamer *Jesse H. Farwell*, for refusing to perform the duties pertaining to his station, in violation of section 4441, Revised Statutes. Case tried June 20. Mr. Comiskey found guilty of the violation mentioned, and his license was suspended for 15 days.

June 19.—The steamer *Kearsarge* collided with State Street Bridge, Chicago, Ill., due to the Dearborn Street Bridge not opening promptly. Damage to the steamer estimated at $50.

June 20.—The steamer *Harvey Watson* collided with the steamer *Carter H. Harrison* near the south breakwater, Chicago. Charges were preferred against Joseph Landon, master of the steamer *Harvey Watson*, alleging violation of rule VIII of the pilot rules. Upon investigation the charge was sustained and his license was suspended for 5 days.

June 21.—Paul G. Spotz appealed from the decision of the local inspectors in refusing to grant him a license to operate motor boats of 15 gross tons or less. Decision of the local inspectors revoked by the supervising inspector of the eighth district.

June 22.—Charges were preferred against Joseph Landon, master of the steamer *Harvey Watson*, for violation of Rule III of the pilot rules. Upon investigation the charge was sustained and the license of Joseph Landon was suspended for 10 days.

June 23.—In attempting to avoid a collision with the steamer *R. A. Seymour, jr.*, while passing through the draw of Troop Street Bridge, Chicago, the steamer *H. Dahlke* struck the abutment of the bridge, sustaining damage estimated at $300.

June 23.—While leaving Indiana Harbor, the steamer *John Stanton* lost her anchor valued at $450.

June 24.—While navigating the Chicago River, the steamer *Christopher Columbus* struck some unknown obstruction with her wheel, breaking off one of the blades. Damage estimated at $500.

July 2.—Charges were preferred against Peter Topic, master of the steamer *R. A. Seymour, jr.*, for alleged violation of Rules I and II of the pilot rules. Upon investigation, the charge was sustained and the license of Peter Topic was suspended for 10 days.

July 5.—While lying in the drainage canal, near Willow Springs, Ill., the steamer *Minnie R.* caught fire from some unknown cause and was totally destroyed. Steamer valued at $10,000.

July 7.—While winding in the Chicago River, the steamer *Pere Marquette 18* struck Lake Street Bridge, sustaining damage estimated at $30.

July 8.—The crank shaft of the motor boat *Illinois* broke while navigating Lake Michigan. Damage estimated at $90.

July 13.—While entering the Chicago River, the propeller wheel to the port engine of the steamer *Carolina* was lost. Damage estimated at $500.

July 14.—While lying in the lagoon at Jackson Park, Chicago, the steamer *Mentor* caught fire from some unknown cause and was completely destroyed. Loss, $3,700.

July 16.—While entering E slip, Chicago River, the steamer *Helen C* stripped all the blades off of her propeller. Damage estimated at $600.

July 16.—At 11 p. m., when about 5 or 6 miles out of Chicago Harbor, the steamer *H. W. Williams* collided with the schooner *Lucy Simpson*, due to the fact that no lights were displayed on the schooner until she was within about 1,000 feet of the steamer. No damage to the steamer *H. W. Williams*.

July 24.—While being towed through the Chicago River, the steamer *George N. Orr* collided with a small house boat. No damage to the steamer.

July 28.—Charges were preferred against Joseph Landon, master of the steamer *Harvey Watson* for violation of Rule II of the pilot rules, in failing to reduce the speed of his steamer after having signaled the steamer *Carter H. Harrison* and receiving no reply. Upon investigation the charge was sustained, and his license was suspended for 5 days.

July 28 and August 3.—Charges were preferred against James Rolson, master of the steamer *Carter H. Harrison*, for violation of Rule I of the pilot rules. Upon investigation it was found that the charge was sustained, and his license was suspended for 10 days.

July 29.—Paul McHugh, a fireman on the steamer *Theodore Roosevelt*, fell down the ladder into the steamer's fire hold, and was badly hurt and removed to the hospital.

July 29.—While passing through Ashland Avenue Bridge, Chicago, the steamer *Shenandoah* sheered and struck the bridge, sustaining damage amounting to $265.

July 31.—The steamer *South Shore* collided with the steamer *Carolina* in the Chicago River, due to the parting of the wheel chains on the steamer *South Shore*. Damage to the *South Shore*, $25; to the *Carolina*, $25.

August 2.—When about to pass through Van Buren Street Bridge, each span being fully opened, the west span dropped on the steamer *Mohoning*, damaging the steamer to the extent of about $1,000.

August 3.—Charles Tiearney, operator of the motor boat *Kid*, violated the provisions of Rule II of the pilot rules, the violation consisting of failure to reduce the speed of the motor boat after having sounded a passing signal to the steamer *Carter H. Harrison*, which signal was not answered by the *Harrison*. Upon trial, Mr. Tieraney was unable to defend his action, and his license was suspended for 5 days.

August 3, 4, and 5.—The steamer *John P. Hopkins* was navigated on the Chicago River on an expired certificate of inspection. Case reported to the collector of customs, Chicago, Ill.

August 4.—While working at an elevator fire, Chicago River and Sixteenth street, the walls of the building collapsed, falling on the steamer *Illinois* and sinking it. Amount of damage to steamer $3,000.

August 10.—While the towing steamer *O. B. Green* was assisting in placing the steamer *Pere Marquette 18* at her dock at Chicago, James Dalton, a deck hand on the steamer *O. B. Green*, was caught by the towline and his leg was broken.

August 10.—While navigating Lake Michigan, about 10 miles northeast of Grosse Point, fire was discovered in the engine room of the steam yacht *Sigma*. The fire was extinguished by the apparatus of the steamer. Damage estimated at $500.

August 28.—While en route to St. Joseph, Mich., C. A. Lawson, a passenger on board the steamer *City of Benton Harbor*, jumped overboard and was drowned. Every effort was made to rescue him, but without success.

September 8.—While navigating Lake Michigan, near Lincoln Park, Chicago, the propeller of the steamer *William H.* struck a sunken pile, breaking several of the blades. Damage estimated at $100.

September 9.—While lying at the Illinois Central Railroad slip, Chicago, the steamer *Harvey Watson* caught fire from some unknown cause, sustaining damage amounting to $850.

September 10.—While lying at the Chicago, Rock Island and Pacific Railway dock at Chicago, the steamer *Chemung* was struck by the steamer *Scranton*, due to the current of the river. Damage to the steamer *Chemung*, $150.

September 17.—The license of Frederick Harvey, operator of motor vessels, was revoked for conduct unbecoming an officer.

September 17.—While navigating the Calumet River, the steamer *John Plankinton* struck some unknown obstruction with her propeller, breaking off 1 blade. Amount of damage, $500.

September 26.—While backing out of E slip, Chicago River, the steamer *Helen C.* struck a rock, breaking her propeller and causing the stern pipe to leak. Amount of damage, $500.

September 28.—While navigating the Chicago River, near Harrison street, the steamer *Batavia* collided with the steamer *Fred Drews*, due to the current of the river. Amount of damage to the *Fred Drews*, $800.

September 30.—James Carson, engineer of the towing steamer *Lorain T.*, had 2 of his toes crushed by the counterbalance of the engine.

October 2.—While navigating the Chicago River near Madison Street Bridge, the steamer *Batavia* struck and upset a rowboat containing 2 men, both of whom were rescued.

October 10.—The steamer *William J. Averell* collided with State Street Bridge, due to the failure of the engine to back promptly. Damage to steamer, $100.

October 12.—While navigating the Chicago River, the steamer *Junior* was struck by the Rush Street Bridge when about halfway through the draw, sustaining damage amounting to about $300.

October 21.—While navigating the Chicago River, the low-pressure piston of the engine of the steamer *M. Talcott* broke, sustaining damage amounting to $100.

October 22.—The towing steamer *Perfection* collided with the gasoline vessel, *Erin*, in the Illinois Central Railroad slip, due to the failure of the motorboat to navigate in accordance with the pilot rules. No damage to the steamer *Perfection*.

November 1.—The steamer *Thomas Cranage* collided with Clark Street Bridge, due to the strong current in the river. Damage to the steamer, $50.

November 3.—While navigating the Chicago River, the steamer *Starrucca* collided with the abutment of Clark Street Bridge, sustaining damage amounting to $200.

November 3.—The fire steamer *Illinois* collided with the barge *Annie M. Peterson*, due to a mistake in engine signals on the part of the pilot of the steamer *Illinois*. Damage to the *Illinois*, $25.

December 4.—While navigating the south branch of the Chicago River, near Thirty-fifth street, the steamer *Samuel Mitchell* struck some bowlders, damaging her bottom plates to the extent of $2,500.

December 6.—While navigating the south branch of the Chicago River, the steamer *Eber Ward* collided with the Baltimore and Ohio Railroad bridge, through failure of the bridge to open on signal. The steamer was unable to stop her headway in time to prevent the collision, and sustained a damage amounting to $500.

December 11.—E. T. Everill, formerly chief engineer of the steamer *Chili*, was charged with violation of section 4441, Revised Statutes, the violation consisting of failure to take proper care of the machinery of said steamer and allowing same to become in bad working order. Investigation pending.

December 15.—The steamer *City of Peoria* sunk at her dock at Peoria, Ill., due to the freezing and bursting of the pipe which supplied water to the well. Steamer has been raised, without having sustained any damage.

December 24.—While entering the draw of the Rush Street Bridge, the steamer *R. A. Seymour, jr.*, collided with scows in tow of the steamer *Roger C. Sullivan*, sustaining damage amounting to $500. Collision due to the inability of the pilots of the respective steamers to see each other's lights until entering the draw of the bridge.

LOCAL DISTRICT OF GRAND HAVEN, MICH.

March 29.—While lying at the dock at Manistee, Mich., the steamer *Sidney O. Neff* caught fire from some unknown cause, sustaining damage estimated at $800.

April 26.—At 11.55 p. m., while entering Petoskey Harbor, during a gale of wind, the steamer *Missouri* collided with the breakwater, sustaining damage estimated at $2,500.

May 20.—While en route from Sheboygan, Wis., to Cleveland, Ohio, the steamer *Edwin N. Ohl* grounded in the Straits of Mackinac, causing No. 4 compartment to leak. Pumps kept the compartment free and steamer proceeded to Cleveland. Damage estimated at $2,000.

June 4.—Michael Martin, master of the steamer *Pere Marquette 6*, was charged with reckless navigation, violation of section 4442, Revised Statutes, and Rule VIII of the pilot rules. Case investigated September 3; charges not sustained, and case dismissed.

June 21.—While lying at the dock at Allegan, Mich., the motor vessel *City of Allegan* caught fire during the night and was totally destroyed. No fire had been in the vessel for several days, and it is presumed the boat was set on fire. Loss, $4,000.

June 25.—Daniel Clark, porter on the steamer *Pere Marquette 4*, while assisting in taking out the passenger gangway, fell overboard and was drowned before assistance could reach him.

June 29.—While passing through the Straits of Mackinac, the propeller of the steamer *Lehigh* was lost from some unknown cause. Damage estimated at $1,000.

July 4.—While bound down Lake Michigan, the steamer *Peter A. B. Widener* stranded on South Manitou Island. Weather foggy at the time. Steamer released herself 2 hours later. Damage, $14,279.

July 4.—While bound from Chicago to Buffalo, the steamer *Nyanza* stranded on Grays reef, Lake Michigan. Steamer was released without assistance. No damage to vessel.

July 15 and 16.—Complaint was made that Theophile A. Trempe, while acting as master of the steamer *Columbia*, had violated section 4449, Revised Statutes, in leaving his official position without due notice to the owner, and section 50, Rule V, general rules and regulations, in failing to hold boat and fire drills. Case investigated, and Captain Trempe found guilty as charged, and his license as master and first-class pilot was suspended for a period of 6 months, effective September 4.

July 30.—While en route from St. Joseph, Mich., to Chicago, Ill., the crosshead of the engine of the steamer *Holland* broke. Temporary repairs were made and the steamer proceeded on her way. Damage, $80.

July 31.—At 10.25 p. m., while en route from Lorain, Ohio, to Milwaukee, Wis., loaded with coal, the steamer *William H. Wolf* collided with Poes reef light-vessel *No. 62* in the Straits of Mackinac. The weather was clear, a light north wind blowing. Upon investigation it was found that John D. Wanvig, master, and Andrew Hansen, first-class pilot, were guilty of negligence and violation of section 4442, Revised Statutes. The license of John D. Wanvig was suspended for 6 months, and that of Andrew Hansen was revoked. Upon appeal of John D. Wanvig to the supervising inspector of the eighth district, the decision of the local board, as appyling to Captain Wanvig, was revoked, and his license was returned to him.

August 10.—Complaint was made that John Hammond, operator of the motorboat *Ensing*, while coming down Grand River, had violated Rule I of the pilot rules. Case investigated August 21. Charges were not sustained, and the case was dismissed.

August 19.—While lying at anchor about 12 miles east of Cheboygan, Mich., the steamer *Helen C* dragged her anchor and drifted on a reef. The steamer was released with the assistance of the steamer *River Queen* and the Bois Blanc Island life-saving crew. Damage to steamer, $800.

August 20.—The steamer *Adiramled* left Harbor Springs, Mich., loaded with lumber, and when abreast of Little Traverse Point, Mich., she sprang a leak. Steamer was turned around and taken back to Harbor Springs, where she sank at the dock. No damage to steamer.

August 25.—At 2.20 a. m. steamer *J. S. Crouse* collided with steamer *Third Michigan*, at the mouth of Grand Traverse Bay, Lake Michigan. No damage to either steamer. Upon investigation it was found that no violation of the pilot rules had been committed, and the case was dismissed.

September 3.—During a dense fog and smoke the steamer *Missouri* grounded near Light-house Point, Little Traverse Bay. Steamer was casting lead at the time and was running very slowly. Vessel released by the assistance of steamer *Susie Chipman* and light-house tender *Sumac.* No damage to steamer.

September 4.—While lying at the dock at Naubinway, Mich., the steamer *Thomas Kane* caught fire and was damaged to the extent of about $50.

September 8.—While on a voyage from Oswego, N. Y., to Chicago, Ill., loaded with coal, the steamer *Robert Wallace* grounded on Bois Blanc Island. After throwing overboard 100 tons of coal, steamer backed off with her own power. The weather was very dark with thick smoke from forest fires at the time of grounding. No damage to steamer.

September 11.—During smoky and foggy weather the steamer *P. P. Miller* grounded near Little Point Sable on the east coast of Lake Michigan. Steamer was running under slow speed and casting lead at the time. Vessel released with the assistance of steamer *Pere Marquette 17*, without having sustained any damage.

September 12.—While bound from Holland, Mich., to Chicago, Ill., laden with passengers and freight, the steamer *Holland* stranded on Drakes Point, Black Lake, Mich. Weather foggy and very smoky. Vessel was released without assistance. No damage to steamer.

September 12.—While bound from Fairport, Ohio, to Green Bay, Wis., loaded with coal, the steamer *F. L. Robbins* stranded on Cheboygan Point, in the Straits of Mackinac. Weather very thick and smoky at the time. Vessel released with the assistance of steamer *River Queen*. No damage to steamer.

September 13.—At 7.20 a. m., during foggy and smoky weather, the steamer *Nyack* grounded on Bank Point, Muskegon Lake. Steamer was released with the assistance of steamers *Carrie A. Ryerson* and *L. Birckhead*. No damage to steamer.

September 15.—At 8 p. m., during smoky and foggy weather, the steamer *Saugatuck* stranded on Little Point Sable, on the east shore of Lake Michigan. Vessel was under check and casting lead at the time. No damage to steamer.

September 16.—While en route from Green Bay, Wis., to Cheboygan, Mich., the steamer *Fannie C. Hart* collided with tow barge *Chester B. Jones*, sustaining slight damage. Weather foggy at the time, and steamer was under check.

September 16.—At 7.45 p. m. the steamer *City of Genoa*, bound for Milwaukee, Wis., stranded on Poes reef, in Straits of Mackinac, during smoky and foggy weather. Vessel running under check at the time. No damage to steamer.

September 17.—During smoky weather, the steamer *Henry Phipps* grounded on South Manitou Island, sustaining damage estimated at $3,000.

September 20.—While backing from the dock at Goy, Mich., the steamer *J. H. Wade* stranded on Flat Table Rock. After throwing overboard 135 tons of cargo, steamer released herself. Damage, $3,000.

September 21.—While en route from Toledo, Ohio, to Milwaukee, Wis., the steamer *Wawatam* stranded on Poes reef in Straits of Mackinac. Weather foggy. Steamer released without assistance. No damage to vessel.

September 22.—While en route from Ashtabula, Ohio, to Milwaukee, Wis., the steamer *Arthur H. Hawgood* stranded on Cathead Point, at the entrance to Big Traverse Bay, during thick and smoky weather. Steamer was under check and casting lead at the time. Vessel released with the assistance of steamer *Manistique, Marquette and Northern 1* and light-house vessel *Sumac*. Damage to steamer, $1,000.

September 23.—While lying at the dock of the Manistee Iron Works, Manistee, Mich., undergoing repairs to boiler, the steamer *Maggie Lutz* caught fire from torch used by boiler maker, sustaining damage estimated at $150.

September 25.—At 12.50 a. m. steamer *Arthur Orr* grounded on Poes reef in the Straits of Mackinac. Weather very foggy and smoky at the time, and light south wind blowing, making it difficult to see. Steamer was released with the assistance of tugs. No damage to steamer.

September 26.—The steamer *Arthur Orr* grounded on Bois Blanc Island, during very smoky and foggy weather. No damage to steamer.

October 23.—The steamer *John Sharples* grounded on Big Point Sable, east shore of Lake Michigan, during thick weather. After lightering about 60 tons of coal, and with the aid of the steamer *Pere Marquette 6*, the vessel was released the next day. No damage to steamer.

October 24.—At 10.41 a. m. steamer *City of Genoa* stranded on McGulpins Point, Straits of Mackinac, during thick and smoky weather. Vessel released by the wrecking steamer *Favorite*. No damage to steamer.

October 24.—At 5.40 p. m. steamer *Hum*, while bound from Charlevoix, Mich., to East Jordan, Mich., sustained damage to her machinery amounting to $150, due to the breaking of the crank pin.

October 28.—Mr. P. G. Sturges operated a small steam launch on the Cheboygan River without having had the boiler tested or inspected, and without equipment on board, as required by the general rules and regulations. Case reported to the collector of customs at Grand Haven, Mich., and to the United States district attorney at Detroit, Mich.

October 29.—When about 12 miles south of Detour, in the Straits of Mackinac, the connecting rod and cylinder head of the engine of the steamer *Chase S. Osborn* broke. Vessel was taken in tow by the steamer *Charles O. Jenkins* and towed to Sault Ste. Marie, Mich. Estimated amount of damage, $300.

December 5.—At 5.30 a. m., while passing through the Straits of Mackinac, steamer *A. D. Davidson* grounded on Bois Blanc Island, during a snowstorm and cloudy weather. After lightering 150 tons of coal, the steamer was released with the assistance of a tug. Vessel was reloaded and proceeded on her way. No damage to steamer.

December 30.—At 12.50 a. m., while en route from Manitowoc, Wis., to Ludington, Mich., steamer *Pere Marquette 17* grounded 3 miles south of Big Point Sable. Weather dark, foggy, and raining. Wind blowing at the rate of 30 miles an hour. Damage to vessel estimated at $50,000. No lives lost or persons injured.

LOCAL DISTRICT OF MARQUETTE, MICH.

January 4.—While entering the harbor at Manistique, Mich., steamer *Manistique, Marquette and Northern 1* struck some unknown obstruction, staving in the plates in hull and sinking the steamer at the dock, sustaining a damage of $9,800.

February 13.—Upon completion of the investigation of the charges filed against Thomas Sullivan for intemperate habits while acting under authority of his license as master of the steamer *Nourmahal* it was found that the charge was sustained, and his second-class pilot's license was suspended for a period of 3 months for violation of section 4439, Revised Statutes.

April 6.—Upon completion of the investigation of the collision between the steamers *Monroe C. Smith* and *Manistique, Marquette and Northern 1,* which occurred on September 11, 1907, it was found that Ralph J. Robertson, first-class pilot of the steamer *Manistique, Marquette and Northern 1,* had violated the provisions of Rule X of the pilot rules, and his license was suspended for a period of 30 days.

May 11.—While proceeding up the Portage River, en route to Houghton, Mich., the steamer *John Stanton* struck some unknown obstruction, staving a hole in the forward compartment of hull. Damage estimated at $5,000.

May 22.—While proceeding up the St. Marys River, the steamer *W. G. Pollock* grounded on rocky bottom near Sailors Encampment, sustaining damage estimated at $1,000.

June 7.—Charges were preferred against John P. Richards, master of the steamer *Anne R. Hennes,* for negligence and inattention to his duty, in violation of section 4465, Revised Statutes. Upon investigation the charge was sustained, and his license as first-class pilot was suspended for a period of 30 days.

June 15.—While proceeding down St. Marys River, the steamer *John M. McKerchey* struck a log with her propeller wheel, breaking off all 4 blades. Damage estimated at $800.

June 18.—While on Portage River the propeller wheel of the steamer *Northern Light* struck a log, breaking it loose from the shaft. Damage estimated at $500.

June 21.—As the steamer *Hoover & Mason* was leaving the American lock at Sault Ste. Marie, Mich., she took a sudden sheer and collided with the steamer *Howard L. Shaw,* lying at the south government pier. Collision due to disabled steering gear. Damage to the *Hoover & Mason,* $2,000; to the *Howard L. Shaw,* $10,000.

June 22.—While on Whitefish Bay, Lake Superior, the steamer *Fred G. Hartwell* was temporarily disabled by the bursting of the low-pressure cylinder of the engine. Estimated damage, $2,000.

June 22.—While leaving St. Marys Canal, in tow of the steamer *Veronica,* the barge *N. C. Holland* sheered and collided with the steamer *John A. Donaldson,* lying at the canal pier. Collision due to the swift current. Damage to the steamer *John A. Donaldson,* $1,500.

June 23.—While off Presque Isle Point, Lake Superior, in a dense fog, the steamer *Tionesta* grounded on rocky bottom, sustaining damage estimated at $400.

June 29.—While both steamers were heading for the Canadian lock opposite Sault Ste. Marie, Ontario, the steamer *Capt. Thomas Wilson* collided with the steamer *Zenith City,* damaging the latter vessel to the estimated amount of $150. Upon investigation, it was found that Daniel Buie, master of the steamer *Capt. Thomas Wilson,* had violated the provisions of Rule VIII of the pilot rules, and his license was suspended for 15 days.

July 5.—In leaving the Canadian lock at Sault Ste. Marie, Ontario, the steamer *D. M. Whitney* struck a submerged anchor with her propeller wheel, breaking 2 of the blades. Damage estimated at $200.

July 5.—Charges were preferred against the fishing steamer *Victor* for carrying passengers without the proper certificate of inspection, and navigating without a licensed engineer, in violation of sections 4424, 4426, and 4438, Revised Statutes. Upon investigation, the charges were sustained, and the first-class pilot's license of Joseph Riell, master of the *Victor,* was suspended for 60 days. Case reported to the United States district attorney at Grand Rapids, Mich., and to the collector of customs at Marquette, Mich.

July 13.—At 3 a. m. the steamer *General Orlando M. Poe* stranded on Hay Lake reef, St. Marys River, sustaining damage estimated at $12,000. Stranding was investigated by the local inspectors at Toledo, Ohio, upon the arrival of the steamer at that place, and the license of William Ferguson, pilot on watch, was revoked for gross negligence.

July 19.—While navigating Lake Superior, the steamer *David W. Mills* was disabled by the breaking of the piston rod and both cylinders of the steeple compound engine. Steamer was subsequently towed to Marysville, Mich., for repairs. Damage estimated at $2,500.

July 26.—While on Torch Lake Canal, Lake Superior, en route to Hubbell, Mich., the steamer *Howard M. Hanna, jr.*, struck some unknown obstruction, sustaining damage estimated at $2,000.

July 28.—While proceeding to Fort William, Ontario, the steamer *Daniel B. Meacham* stranded on Passage Island, Lake Superior, during a thick fog, sustaining damage estimated at $15,000.

July 30.—While on Portage River, en route to Houghton, Mich., the steamer *Business* struck a partially submerged log, breaking the propeller wheel. Damage, $600.

July 30.—While proceeding to Hancock, Mich., the steamer *A. B. Wolvin* grounded on rocky bottom at Princess Point, Portage River, sustaining damage estimated at $3,000. It was charged that this casualty was caused by the steamer *Valerie* attempting to pass the steamer *A. B. Wolvin* without giving the required passing signal. Charge investigated and decision rendered September 25, suspending the license of William Bussiere, master of the steamer *Valerie*, for 30 days, for violation of Rule VIII of the pilot rules.

July 31.—While in tow of the steamer *George Rogers*, the Standard Oil Company's barge *No. 86* collided with the steamer *Scranton*, in Portage River, the *Scranton* sustaining damage estimated at $1,800. Collision investigated and decision rendered August 10, dismissing the case, as it was found that the barge was entirely at fault for the collision by reason of its bad steering qualities, and the masters of the respective steamers had acted carefully and in compliance with the law, and were in no way to blame.

August 8.—While the steamer *J. P. Donaldson* was lying at the dock at Marquette, Mich., Joseph Carr, employed as watchman on the steamer, was accidentally killed by falling into the hold through an open hatchway.

August 9.—While the steamer *Honduras* was on Lake Superior, bound for Marquette, Mich., the furnace flue in the port boiler partially collapsed. Damage estimated at $1,000. Case investigated and decision rendered August 13, and it being found that this casualty was caused by negligence and unskillfulness in allowing the boilers to become in bad condition, the licenses of Samuel G. Cowell, chief engineer, and John Johnston, acting first assistant engineer, were suspended for a period of 3 months.

August 22.—While lying stranded in Georgian Bay, near Thessalon, Ontario, the steamer *Oregon* caught fire from some unknown cause, and was totally destroyed. Steamer valued at $30,000.

August 27.—While navigating Lake Huron, in a dense smoke, the steamer *J. W. Westcott* stranded on a rocky shoal on the south side of Drummond Island, sustaining damages estimated at $600.

September 2.—While proceeding in the usual course in the Canadian channel, St. Marys River, the steamer *A. E. Nettleton* struck some unknown obstruction opposite Sault Ste. Marie, Ontario, sustaining damage estimated at $18,000.

September 3.—While passing through the St. Marys Falls Canal, during a gale of wind, the steamer *A. B. Wolvin* collided with the barge *John Fritz*, above the locks, sustaining damage estimated at $50.

September 4.—While entering Detour passage to St. Marys River the steamer *Saxona* grounded on rocky bottom off Espanore Island, resulting in the breaking and loss of the propeller wheel. Estimated damage, $500.

September 5.—While both steamers were drifting in a dense fog on St. Marys River, steamer *L. C. Waldo* collided with the stern of the steamer *Pendennis White* in the west Neebish channel. Estimated damage to the *Pendennis White*, $500. No damage to the *L. C. Waldo.*

September 6.—While on Lake Superior, the steamer *Chauncey Hurlbut* sprung a leak to such an extent that the pumps proved unable to keep the water down, and the steamer was beached about 10 miles west of Whitefish Point, subsequently going to pieces and proving a total loss. Value of steamer, $15,000. No lives lost.

September 7.—While making a landing at the Traverse Bay coal dock on Traverse Bay, Lake Superior, the steamer *Robert L. Fryer* grounded on rocky bottom, sustaining damage estimated at $3,500.

September 12.—While proceeding down the St. Marys River the steamer *Robert Holland* struck the middle ground shoal near Round Island, breaking the propeller wheel. Estimated damage, $500.

September 12.—The steamer *Fred G. Hartwell*, in tow of the steamer *F. B. Morse*, collided with the steamer *Superior* in St. Marys River, opposite Sault Ste. Marie, the *Superior* sustaining damage estimated at $700. No damage to the steamer *Fred G. Hartwell.*

September 14.—The steamer *Ball Brothers* stranded on rocky bottom off Point St. Vitals, Lake Huron, sustaining damage to the amount of $11,841. Weather very foggy and smoky at the time.

September 14.—While lying at anchor in Lake Michigan, near Naubinway, Mich., in a heavy squall of wind, the steamer *M. T. Green* dragged her anchor and went ashore, breaking the shoe and sustaining damage to the amount of $300.

September 16.—While attempting to pass each other on the Round Island ranges in St. Marys River, in a dense fog and smoke, the steamers *North Star* and *W. G. Pollock* came into collision. Estimated damage to the *North Star*, $1,000; to the *W. G. Pollock*, $7,000. Investigation pending.

September 17.—While leaving the Canadian Lock Canal at Sault Ste. Marie, Ontario, the steamer *James C. Wallace* struck some unknown obstruction, sustaining damage estimated at $2,500.

September 18.—Charges were preferred against George Cottrell, master of the steamer *Argo*, for alleged violation of Rule VIII of the pilot rules. Owing to failure of the complainant, H. G. Harbottle, master of the steamer *George Stephenson*, to reply to letters, or return written charges sworn to, as requested, the case was dismissed.

September 20.—While attempting to make a landing at the dock at Gay, Mich., on Traverse Bay, Lake Superior, the steamer *J. H. Wade* grounded on rocky bottom, sustaining damage estimated at $400.

September 22.—While proceeding down St. Marys River, under slow check, in a dense smoke, the steamer *Fred G. Hartwell* stranded on Cedar Point Shoal, sustaining damage estimated at $5,000.

September 25.—While on Lake Superior, en route to Grand Marais, Mich., the crosshead strap of the main engine in steamer *Thomas Friant* gave way, breaking the cylinder head and causing other damage amounting to $123.

September 27.—While en route from Superior, Wis., to Buffalo, N. Y., the steamer *Neshoto* ran on Crisp Point, Lake Superior, during very thick, smoky weather, subsequently going to pieces and becoming a total wreck. The crew were taken off the steamer by members of the Life-Saving Service without loss of life. Estimated value of steamer, $40,000.

September 28.—While entering the Canadian Canal at Sault Ste. Marie, Ontario, the steamer *Lyman C. Smith* collided with the abutment of the south pier, breaking several plates in the hull, which caused the steamer to sink. Damage to steamer estimated at $5,000.

September 28.—While on Lake Superior, en route to Buffalo, N. Y., the steamer *Frontenac* stranded on Parisian Island, Whitefish Bay, and sunk. Damage sustained by steamer estimated at $20,000.

October 5.—While off Eagle Harbor, Mich., in a heavy sea, the port anchor of the steamer *Howard M. Hanna, jr.*, worked loose and was lost overboard, with all the chain attached to it. Estimated loss, $1,000.

October 12.—When about 100 miles from Whitefish Point, on Lake Superior, the main shaft of the engine in steamer *George H. Russell* broke, and the outboard end of the shaft and propeller wheel were lost overboard. Estimated loss and damage, $3,000.

October 13.—While leaving the Pittsburg Coal Company's dock in St. Marys River, the steamer *Elva* struck an obstruction, breaking the propeller wheel and bending the main shaft. Damage, $200.

October 14.—While landing at the dock at Sault Ste. Marie, Ontario, it was discovered that the crank pin of the high-pressure engine of the steamer *Gettysburg* was broken. Amount of damage, $515.

October 17.—While lying at anchor off Detour passage, on Lake Huron, in a dense smoke, the steamer *Langham* was struck by the steamer *Sonoma* and damaged to the estimated amount of $9,000. No damage to steamer *Sonoma.*

October 18.—At about 8.15 a. m., while on Hay Lake, St. Marys River, near Nine Mile Point, the steamer *John A. Donaldson* overtook and ran down a small gasoline launch, containing 4 persons, sinking the launch and drowning 1 of the members of her crew. The three survivors were picked up by the steamer *Mary C. Elphicke*, following the steamer *Donaldson*, and taken to Sault Ste. Marie, Mich. Investigation pending.

October 20.—While proceeding down St. Marys River in a dense smoke, the steamer *G. Watson French* stranded on Hay Point, sustaining damage estimated at $3,300.

October 21.—While en route to Escanaba, Mich., the steamer *Caledonia* stranded on rocky bottom, sustaining damage estimated at $100.

October 22.—While running under slow check, in a dense smoke, en route to Duluth, Minn., the steamer *Scranton* stranded on a rocky shoal near Point Isabel, Lake Superior, sustaining damage estimated at $15,000.

October 25.—While en route to Ashtabula, Ohio, in smoky weather, the steamer *Daniel B. Meacham* stranded on Keweenaw Point, Lake Superior, 12 miles east of the Lake Superior Ship Canal, sustaining damage estimated at $25,000. Charges were preferred against John R. Hesson, master and pilot of this steamer, by P. Keischgens, first officer, alleging negligence, unskillfulness, and inattention to duty. Upon investigation, it was found that the testimony did not sustain the charge, and the case was dismissed.

October 26.—While the steamer *Emerald* was lying at anchor at Warners Cove, Drummond Island, loading pulp wood, Edward Quikley, employed as a watchman on board, fell into the hold, receiving injuries from which he subsequently died in the hospital at Sault Ste. Marie, Mich.

November 3.—While leaving the Presque Isle ore dock at Marquette, Mich., in a heavy sea, the steamer *G. J. Grammer* struck bottom, sustaining damage estimated at $500.

November 5.—While making the turn just below the dike in the West Neebish channel of St. Marys River, the steamer *R. W. England*, owing to defective steering gear, collided with the tow barge *A. C. Maxwell*, sinking the latter vessel at the dock where she was lying. No damage to the steamer *R. W. England*.

November 11.—It having been reported that the steamer *Minta K.*, of Detour, Mich., was being navigated in violation of section 4426, Revised Statutes, without a licensed engineer, and, upon investigation, admitted by Mr. Fred Kelley, owner and master of the *Minta K.*, the violation was reported to the United States district attorney at Grand Rapids, Mich., and to the collector of customs at Marquette, Mich.

November 11.—While proceeding up the Canadian channel in the St. Marys River, opposite Sault Ste. Marie, Ontario, the steamer *Maricopa* struck some unknown obstruction, sustaining damage estimated at $1,000.

November 25.—While the steamer *Powell Stackhouse* was lying at the iron-ore dock at Escanaba, Mich., John S. Morrison, mate and pilot, accidentally fell into the hold at 12.30 a. m., and was instantly killed.

November 25.—While en route to Duluth, Minn., with cargo of merchandise, the steamer *Mohawk* stranded on a rocky shoal about 4 miles east of Detour passage, Lake Huron. Weather very foggy and smoky at the time. Steamer was subsequently released, and proceeded to Detroit, Mich. Estimated damage, $60,000.

November 26.—While en route to Buffalo, N. Y., the steamer *Sheldon Parks* was caught in a heavy gale of wind and sea on Lake Superior, and in turning around to head into it, the waves swept over the steamer, staving in the cabin and causing an estimated damage of $250.

November 30.—On or about this date the steamer *D. M. Clemson*, of Duluth, Minn., 5,531 gross tons, from causes unknown, foundered or was lost on Lake Superior, together with all on board, consisting of 24 persons, all officers and crew. The *Clemson* was last seen above Whitefish Point, on Lake Superior, Monday, November 30, by the officers and crew of the steamer *J. J. H. Brown*, and from the search made and wreckage picked up subsequent to that date it was established beyond a doubt that the *Clemson* had gone down in the violent storm existing and increasing at that time. Estimated value of steamer, $330,000.

November 30.—While on Lake Superior, the steamer *Yosemite* encountered a violent gale of wind and sea, which started the riveted joints in hull, causing a damage estimated at $1,000.

November 30.—While leaving the Canadian lock at Sault Ste. Marie, Ontario, the steamer *Sylvania* struck on the miter sill, sustaining damage estimated at $6,000.

December 6.—While en route to Fort William, Ontario, the steamer *John Stanton*, during a blinding snowstorm, stranded on a shoal off Iroquois Island, Whitefish Bay, Lake Superior. Estimated damage to steamer, $12,000.

December 22.—While being laid up for the winter at Sault Ste. Marie, Mich., the steamer *Thomas Friant* caught fire, and was burned to the water's edge, proving a total loss. Origin of fire is not positively known, but is supposed to have started from a lighted lamp in the boiler room. Loss estimated at $7,000.

LOCAL DISTRICT OF MILWAUKEE, WIS.

February 18.—Upon investigation, the first-class pilot's license of Mr. Salyer Horton was revoked for violation of section 4445, Revised Statutes, on December 18, 1907. Mr. Horton appealed to the supervising inspector of the eighth district, who revoked the decision of the local inspectors.

March 25.—Steamer *Carolina* struck abutment of bridge in the Milwaukee River, breaking bucket from propeller wheel. Damage estimated at $200.

April 23.—While navigating Lake Michigan, in the vicinity of Port Washington, Wis., the eccentric slipped from the high-pressure cylinder of the steamer *Manchester*, sustaining damage estimated at $300. Steamer was towed to Milwaukee, Wis.

May 10.—At 2.50 a. m. the steamer *Utica* stranded on South Point, Lake Michigan, near Milwaukee, Wis. Weather very dark and smoky at the time. After lightering a portion of the cargo the steamer was released without damage, and proceeded on its way.

May 14.—When near South Point, Lake Michigan, the steamer *J. C. Suit* became water-logged and was towed to Milwaukee, Wis. No damage to steamer.

June 7.—The steamer *J. J. H. Brown* collided with abutment of bridge in the Milwaukee River, sustaining damage estimated at $500.

June 8.—The steamer *J. J. H. Brown,* in tow of 2 towing steamers, collided with abutment of bridge in the Milwaukee River, sustaining damage estimated at $1,000.

July 2.—While towing a scow in the Fox River, near Depere, Wis., Frank Martell, engineer on the towing steamer *Volunteer*, fell between the tug and scow and was drowned. All efforts were made to save him, but the scow passed over Mr. Martell and it was impossible to save him.

July 7.—The steamer *Chemung* collided with abutment of bridge in the Milwaukee River, sustaining damage estimated at $1,000. There were 2 steamers lying in ordinary near the bridge, and they partially obstructed the draw, which made it impossible for the *Chemung* to go through.

July 13.—At 7.15 a. m., after taking part in fire and boat drills on the steamer *Virginia*, the wheelman fell overboard from the promenade deck and was drowned. His body was recovered about 2 hours later.

July 20.—At 2.30 a. m. the schooner *Isolde Bock* collided with the steamer *Corsica*, near Twin River Point, Lake Michigan, the steamer sustaining damage estimated at $25. It was very dark at the time and the lights of the schooner were not seen until she was within 800 feet of the steamer.

July 22.—Mr. W. C. Schilling appealed from the decision of the local inspectors in refusing to grant permits to carry petroleum on his steamers, and their action was modified by the supervising inspector of the eighth district.

August 3.—While making the turn at the piers, Milwaukee River, the steamers *Nyack* and *Sheboygan* came into collision, neither steamer receiving any damage.

August 5.—The propeller wheel of the steamer *Oscoda* was damaged by striking a sunken log. Amount of damage, $400.

August 7.—The steamer *City of London* stranded on Dunlap reef, Sturgeon Bay, Wis. Steamer was released the next day without injury.

August 9.—The steamer *H. A. Root* collided with a bridge in the Milwaukee River. No damage to steamer.

August 10.—While winding around at bend in the Milwaukee River, the steamer *Iowa* was struck by the steamer *Christopher Columbus*, in tow of a tug, the *Iowa* sustaining damage estimated at $250. No damage to the Christopher Columbus.

August 31.—The steamer *Thistle* struck a rock in the Fox River, near Berlin, Wis., sustaining damage estimated at $25.

September 9.—The steamers *Pere Marquette 3* and *Philetus Sawyer* collided in the Milwaukee River, the *Pere Marquette 3* sustaining damage estimated at $1,500. No damage to the steamer *Philetus Sawyer*. Upon investigation it was found that there was no violation of the pilot rules and the case was dismissed.

October 17.—The steamer *J. D. Marshall* stranded seven-eighths of a mile SE. ¼ E. of Sherwood Point light, Green Bay. Steamer released the next day without injury.

October 19.—When about 30 miles east of Kenosha, Wis., on Lake Michigan, and laboring in a heavy sea, the throttle valve on the steamer *Maggie Marshall* broke off the steam chest and the escaping steam killed the chief engineer, assistant engineer, 1 fireman, and 1 deck hand. This accident was investigated, and it was found that the same was probably caused by the shifting of the boiler due to the heavy rolling of the steamer. This caused the main steam pipe to pull out of the slip joint, so that in the working of the ship the end of the pipe came in contact with the bottom of the stuffing box in slip joint, and the force was so great that it broke off the throttle valve close to the flange that connects at the cylinder. Amount of damage sustained by the steamer estimated at $500. Four lives lost.

October 23.—During smoky weather the steamer *City of Marquette* stranded 1 mile south of Kenosha, Wis., on Lake Michigan. Vessel was released next day without injury.

October 27.—The steamer *William Engel* stranded about 2 miles south of Kenosha, Wis., on Lake Michigan. Vessel was released the same day without damage.

October 27.—While entering the harbor at Sheboygan, Wis., the steamer *Peters* took a sheer and before vessel could be stopped she ran into the steamer *Venezuela*, lying at the dock. The *Peters* was under check at time of sheering. Damage to the steamer *Peters*, $250; to the steamer *Venezuela*, $1,000.

November 1.—The steamer *Muskegon* stranded on Nine-foot Shoal, Rock Island passage. Vessel released the next day. Damage estimated at $300.

November 16.—While lying at the dock in the Milwaukee River, the steamer *Robert C. Went* was damaged by fire to the extent of about $2,000. Fire was caused by the explosion of a lamp in the steward's room and was put out by the crew with the aid of the Milwaukee fire department.

November 23.—During foggy weather, the steamer *Leonard C. Hanna* stranded on Milwaukee North Point, sustaining damage estimated at $2,000. Vessel was released without assistance.

November 23.—The motor vessel *J. M. Harvey* stranded 6 miles south of Sheboygan, Wis., on Lake Michigan, and became a total wreck. Vessel valued at $1,000.

December 13.—The steamer *D. B. Meacham*, in tow of a towing steamer in the Kinnickinnic River, Milwaukee, Wis., collided with the steamer *William A. Hawgood* lying at the dock, sustaining damage estimated at $1,000. Damage to the *Hawgood*, $2,000.

December 18.—While shifting from one dock to another at Sheboygan, Wis., the suction from the steamer *William H. Mills* pulled the towing steamer *Annie D* from the dock to which she was tied and carried her under the stern of the *Mills*, where the propeller wheel of the *Mills* struck the *Annie D*, damaging the tug to the amount of $75. No damage to steamer *William H. Mills*.

LOCAL DISTRICT OF PORT HURON, MICH.

January 7.—W. P. Benham, master of the steamer *J. J. Sullivan*, appealed from the decision of the local inspectors in suspending his license for 3 months for violation of the rules governing the movement of vessels through the improved channels of the St. Clair River at Stag Island. The decision of the local inspectors was sustained by the supervising inspector of the eighth district.

January 10.—While lying at the dock at Algonac, Mich., the steamer *New York* was damaged by fire to the extent of about $20,000.

January 24.—Charges were preferred against John A. Miller, master of the steamer *Reliable* for violation of the rules governing the movements of vessels through the improved channels of the St. Clair River at Stag Island on December 10, 1907. Case investigated, and as it was found that the charges were not sustained by the evidence submitted, it was dismissed.

February 10.—Upon completion of the investigation of the collision between the steamers *Lake Shore* and *Fred Pabst*, which occurred in the St. Clair River on October 11, 1907, it was found that there was no willful violation of the pilot rules, and the case was dismissed.

February 25.—It having come to the knowledge of the local inspectors that Fred W. Thodey had filed with his application for license a letter which was a forgery, an investigation was held, and as a result of said investigation the first-class pilot's license of Mr. Thodey was revoked. Mr. Thodey appealed to the supervising inspector of the eighth district, who sustained the decision of the local inspectors.

May 21.—While bound up Lake Huron, in a dense fog, the steamer *Joshua W. Rhodes* stranded at Grace Harbor, sustaining damage estimated at $30,000.

June 8.—At 12.15 p. m., while crossing Saginaw Bay, the steamer *Deer* was destroyed by fire. Loss, $8,000. No lives lost.

July 3.—At 7 a. m., while bound down the St. Clair River, at the upper end of Southeast Bend, the steamer *Northern Wave* collided with the barge *Sir Isaac Lothian Bell*, in tow of the steamer *James B. Eades*, sustaining damage estimated at $2,500.

July 7.—At 3 a. m. the steamer *M. A. Hanna* collided with the steamer *H. P McIntosh* in the St. Clair River, abreast of Port Huron, sustaining damage estimated at $15,000. Damage to the *H. P. McIntosh* estimated at $20,000. Upon investigation it was found that the pilot rules had not been violated, and the case was dismissed.

July 11.—Charges were preferred against Peter Delpier, master of the steamer *Hornet*, for violation of Rule VIII of the pilot rules. Case investigated, charges sustained, and second-class pilot's license of Captain Delpier was suspended for 30 days. An appeal was taken to the supervising inspector of the eighth district, who revoked the decision of the local inspectors.

July 19.—While passing through the draw of the Pere Marquette Railroad bridge at Saginaw, Mich., a deck hand on the steamer *Flora* was struck on the head by a spring pile and instantly killed.

July 20.—At 11 p. m., while bound down Lake Huron, 11 miles above Port Sanilac, the steamer *Charles A. Street* was totally destroyed by fire. Value of steamer, $20,000.

July 29.—At 9.15 a. m., while bound down the St. Clair River, near Port Lambton, the steamer *E. A. S. Clarke* collided with the steamer *D. M. Clemson*, sustaining damage estimated at $1,500. Damage to the *D. M. Clemson*, $2,000. Collision due to the parting of the wheel chains of the steamer *E. A. S. Clarke.*

August 20.—At 6 a. m. the steamer *Langham* stranded on Saw-log Point, sustaining damage estimated at $500.

September 8.—At 6.30 a. m., while bound down the St. Clair River, the steering gear of the steamer *Hoover & Mason* became disabled and she grounded on Stag Island. Damage estimated at $10,000.

September 16.—While trying to make a landing at the coal dock at Depot Harbor, Ontario, the steamer *Kearsarge* backed into the dock, breaking her rudder and shoe, sustaining damage estimated at $3,000.

September 19.—At 1 p. m., the steamer *William Maxwell* grounded on a reef off Thunder Bay Island and became a total loss. Vessel valued at $4,700. Weather very foggy and smoky at the time.

September 19.—The steamer *Sonora* grounded about 6 miles above Harbor Beach, during foggy and smoky weather, sustaining damage estimated at $35,000.

September 22.—At 10 a. m. the steamer *Mohegan* stranded on Charity Island, breaking her propeller wheel, and sustaining damage estimated at $300.

September 29.—At 2 a. m. the steamer *Calumet* stranded on Stag Island, sustaining damage amounting to $4,000.

October 18.—At 1.20 p. m. the steamer *George N. Orr* stranded on Red Rock, Georgian Bay, sustaining damage amounting to $2,500.

November 1.—At 11.37 a. m., while the steamer *City of Mackinac* was making a landing at Oscoda, Mich., 1 ring follower and several bolts broke, causing damage estimated at $250.

November 25.—At 5.20 a. m. the steamers *North Star* and *Northern Queen*, when about 3 miles below Port Sanilac, came into collision. The *North Star* was sunk and proved a total loss. Steamer valued at $150,000. Damage to the *Northern Queen* estimated at $25,000. No lives lost. Investigation pending.

December 4.—At 8.45 p. m., while making a landing at Alpena, Mich., the steamer *Wyandotte* struck some unknown obstruction which caused her to run out of the channel and strand on a reef at that place. Damage estimated at $3,000.

December 13.—At 2.30 a. m., during a severe snowstorm and southwest gale, the steamer *James E. Davidson* grounded on a flat rock abreast of Kettle Point, sustaining damage estimated at $25,000.

December 22.—At 7 a. m., while lying at anchor abreast of Port Huron, Mich., the steamer *John M. McKerchey* was struck by the British steamer *International*, sustaining damage estimated at $3,000.

NINTH SUPERVISING DISTRICT.

LOCAL DISTRICT OF CLEVELAND, OHIO.

March 17.—Steamer *Marquette and Bessemer No. 2*, while engaged in breaking a channel through the ice for the steamer *Marquette and Bessemer No. 1* in Lake Erie, sustained a damage of about $2,000.

March 17.—We wish to add to our report of the collision, made on April 2 and based on the report made by Capt. R. R. McLeod of the steamer *Marquette and Bessemer No. 2*, dated March 28, by stating that the report made by M. M. Rowan, master of the steamer *Marquette and Bessemer No. 1*, dated March 17, gives the information that the steamer *Marquette and Bessemer No. 1* was damaged to the amount of about $3,000. Investigation of this matter now pending.

April 11.—While winding around in Cleveland Harbor, wind drove the steamer *City of St. Ignace*, 1,923 gross tons, against 2 barges that were lying abreast of each other, causing a damage to steamer *City of St. Ignace* of about $800. No person injured.

May 19.—While moving around the Cleveland Harbor the steamer *G. Watson French* struck the tug *Wm. Kennedy*, which was lying alongside a dock, damaging tug to the amount of $1,000. No damage done to steamer *French.*

May 20.—Steamer *Odanah*, while lying at winter mooring, was struck by the steamer *Masaba* and was damaged to the amount of $800.

May 20.—Steamer *Harvey D. Goulder*, while moving in harbor of Lorain, Ohio, in tow of a tug, parted her line, causing her to strike the abutment of the bridge, damaging the steamer to the amount of $500.

May 24.—While entering the piers at Fairport, Ohio, owing to a heavy current, the steamer *Binghampton* took a sheer and struck the east pier. Damage to steamer $3,000; to pier, estimated at $100.

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May 20.—Steamer *Harvey D. Goulder*, while moving in harbor of Lorain, Ohio, in tow of a tug, parted her line, causing her to strike the abutment of the bridge, damaging the steamer to the amount of $500.

May 24.—While entering the piers at Fairport, Ohio, owing to a heavy current, the steamer *Binghampton* took a sheer and struck the east pier. Damage to steamer $3,000; to pier, estimated at $100.

June 10.—While entering the piers in harbor at Cleveland, Ohio, steamer *Huron* struck the tug *George Cooper*, damaging tug to the amount of $150. No damage to the steamer *Huron*.

June 16.—Thomas Colbert, while acting as pilot of steamer *Thomas F. Cole*, violated pilot rules II and X. We investigated this matter and found said Colbert guilty, and suspended his license for 30 days.

June 18.—While steamer *George W. Perkins*, 6,406 gross tons, was being towed out of harbor of Conneaut, Ohio, the steamer struck the breakwater, causing an estimated damage of $2,500. Damage to breakwater unknown.

June 25.—While steamer *Arthur H. Hawgood* was lying at anchor inside breakwater at Cleveland, Ohio, the Canadian steamer *E. B. Olser* struck the steamer *Arthur H. Hawgood*, damaging her to the amount of about $500.

July 17.—Between 8 and 9 p. m. steamer *Frontenac*, 626 gross tons, while lying at the dock in Lorain, Ohio, fire started in or about the galley; cause unknown; the fire pumps were promptly started; the tug *Goulder* and Lorain fire department came to her assistance. Estimated damage is $15,000. No person injured.

July 20.—While steamer *Francis Widlar* was loading coal at her dock at Fairport Harbor, Ohio, John Cabin, one of the deck crew, said to be intoxicated, fell from the steamer to the dock, rolled into the river, and was drowned. The body was later recovered by life-savers.

August 19.—While steamer *L. C. Hanna* was being towed out of Ashtabula Harbor, Ohio, stern first, by 2 tugs, and when approaching the breakwater the stern line parted, causing the steamer to strike the east crib. Estimated damage to steamer, $1,500.

September 5.—A. F. Barbonias, steward on the steamer *Charles A. Eddy*, while walking aft on the deck of said steamer, fell through one of the hatches into the hold and was killed. There was a lighted lantern at each end of the hatch when the accident happened. The steamer was loading coal at the time.

September 10.—Sandsucker steamer *Wonder*, dragged ashore at Ashtabula, Ohio, after being released September 12, sunk in 22 feet of water in one of the slips at Ashtabula. Damage as yet not ascertained.

September 14.—Steamer *Wm. F. Fitch*, while coming into the harbor at Ashtabula, Ohio, in tow of a tug, and when about 300 feet inside the pierheads and about 50 feet off the Lake Shore dock, struck some unknown submerged obstruction, damaging steamer's bottom on the starboard side. As near as can be learned this obstruction is an anchor lost some time before by the steamer *Frederick B. Wells*. Estimated damage to steamer, $7,000.

September 17.—Steamer *Wm. G. Mather*, while entering the harbor of Ashtabula, Ohio, struck an obstruction, puncturing 2 plates, filling compartments and forepeak with water, which necessitated lightering 230 tons of cargo to enable steamer to proceed to unloading dock. Estimated damage to steamer, $2,500. This obstruction, which proved to be an anchor lost by the steamer *Frederick B. Wells*, has been found and removed by diver.

September 22.—While heaving up anchors on steamer *Sheldon Parks*, the watchman, Robert J. Ferrick, got caught in the gear wheel of the windlass, drawing in his leg, injuring it to such an extent that amputation was found necessary. He was taken ashore and brought to the hospital as soon as possible.

October 3.—Steamer *Harry A. Berwind*, while entering harbor at Conneaut, Ohio, about 700 feet inside of piers, struck a submerged obstruction, damaging 9 plates, and several frames in No. 1 and No. 2 tanks on starboard side.

October 15.—Because of low water, steamer *Henry B. Smith* rested on the bottom in harbor at Lorain, Ohio, for 2 days. No damage was expected as the result, as it was believed to be a soft bottom, but on the steamer being placed in dry dock it was discovered that her bottom was indented and damaged, approximately, $5,000. Steamer was placed in dry dock November 9, at Lorain, Ohio.

October 19.—Steamer *D. M. Clemson*, bound from Conneaut to Ashtabula, Ohio, and while entering the harbor at Ashtabula, Ohio, collided with the west breakwater, upon which stands the light-house, doing damage to light-house. Amount of damage not yet ascertained. The master attributes the collision to a strong current.

October 20.—Frank Restake, a wheelman on steamer *Marquette and Bessemer No. 1*, was missed from said steamer. He had been on watch until noon. At 6 p. m. could not be found. He was supposed to have been in his room, but was seen by several of the crew once forward during the afternoon. He had been ashore for 10 days previously, and it was reported he had drunk considerable. The presumption is he got overboard either by design or accident. We held this report for several days lest some trace of him should be found, but up to the present writing no further information has been had, *November 3.*—Steamers *Matoa* and *J. E. Upson*, while trying to pass each other abreast of the steamer *Saginaw*, which was lying made fast to the dock, squeezed the steamer *Saginaw* against the dock. Damage to steamer *Saginaw* not yet estimated. No damage done to the other steamers.

November 16.—Steamer *City of Detroit*, 1,919 gross tons, while leaving her dock at Cleveland, Ohio, being underway, the air pump broke, which prevented the steamer from proceeding to Detroit, her port of destination. The steamer was given a permit to be towed to Detroit for repairs. Estimated damage to machinery, $2,000.

November 11 and 19.—Steamer *John C. Pringle*, shortly after leaving Cleveland, Ohio, on November 11, encountered very heavy weather, causing her to leak to the extent of making it necessary to beach the steamer to avoid sinking in deep water. She was watched from day to day, and on November 19, the first opportunity, steamer was released and towed under the Cleveland breakwater and afterwards sunk. Damage not ascertained.

LOCAL DISTRICT OF BUFFALO, N. Y.

March 6.—While breaking an ice jam in the Buffalo Harbor the fire steamer *John M. Hutchinson* collided with a dock, causing the boiler to shift and breaking stop valve on steam pipe. Damage, $2,500.

May 7.—While steamer *Louis Banks* was moored to her dock at Dunkirk, N. Y., fire broke out about 3 a. m. and destroyed part of the upper works. Damage, $600.

May 25.—While steamer *Leonard C. Hanna* was maneuvering in the Erie Harbor, Pennsylvania, she collided with a dock, damaging plates to the amount of $2,500.

June 20.—In the afternoon fire broke out in a building adjoining a dock at Erie, Pa., to which the fishing steamers *Cornelius W. Desmond* and *W. J. McCarter* were moored, and both steamers were totally destroyed. Loss of *Cornelius W. Desmond*, $3,800, of *W. J. McCarter*, $2,000. Steamer *Harry G. Barnhurst* was also damaged to the extent of $1,000.

June 27.—About 1.15 a. m., while tug *Albany* was lying in the Erie Canal near Tonawanda, N. Y., fire broke out around the engine room and destroyed upper works. Damage, $750.

June 28.—In the evening, while steamer *Gettysburg* was moored to a dock at Tonawanda, N. Y., Ervin Miller, a watchman, jumped from the stern of the steamer into the Niagara River for the purpose of bathing and was drowned.

July 16.—In the forenoon a collision occurred in the Buffalo Harbor involving steamers *Robert Mills*, *Crete*, and U. S. light-house tender *Crocus*. Case investigated and dismissed.

August 5.—About 1.30 a. m., while tug *Major Kingman* was moored to her dock at the foot of Genesee street, fire broke out and did damage to the amount of $400.

August 11.—About 10.40 p. m., while steamers *Titania* and *Kingston* were entering Charlotte Harbor, New York, they collided, and the *Titania* was sunk, being a total loss, estimated at $10,000. The passengers, numbering about 20, were rescued. Case investigated August 13 to 28; decision, September, suspending license of Patrick Thorpe, master and pilot of steamer *Titania*, for 6 months for violation of the pilot rules. Henry Esford, master and pilot of the steamer *Kingston*, was also found to have violated certain pilot rules, but being a British subject and in command of a Canadian steamer, no action could be taken in his case.

August 16.—About 7.30 p. m., while steamer *Clarence Fix*, with barge *Geo. H. Striker* alongside, was coming up the Niagara River near Grand Island ferry, a naphtha launch containing 6 persons attempted to cross ahead of the steamer and barge and was upset and 3 persons drowned. Case investigated; decision August 26, exonerating the licensed officers from blame. Barge reported to the collector of customs, Buffalo, N. Y., for being insufficiently equipped.

August 22.—About 11.30 a. m., steamer *William A. Haskell* had entered the piers and was rounding to anchor alongside the breakwater when she collided with the same, doing damage estimated at $1,000.

September 1.—While tug *R. H. Hebard* was lying in the Erie Canal at Middleport, N. Y., fire broke out about 4.15 a. m., destroying part of the upper works and doing damage estimated at $500.

September 21.—Steamer *Mathew Wilson* stranded in the Niagara River near Buffalo, damaging planking and keel to the amount of $500.

September 22.—In the afternoon, while fishing steamer *Erie* was being navigated in Erie Harbor, Pennsylvania, the shaft broke, damaging machinery to the amount of $600.

September 28.—While steamer *Amazon* was about to make a north entrance to Buffalo breakwater, she fetched up on a shoal and cargo had to be lightered. Vessel was placed in dry dock and damage estimated at $10,000.

September 29.—About 9.30 a. m., while fishing steamer *E. C. Oggel* was in Lake Erie, about 13 miles from Erie, Pa., Lee Parks, a fisherman, was washed overboard and drowned.

October 24.—While steamer *Havana* was navigating Erie Harbor, Pennsylvania, she struck an obstruction, damaging rudderstock and shoe to the amount of $500.

October 24.—At night, while tug *Yale*, with barge *Sweetheart* in tow, and tug *John Kelderhouse*, with a mud scow in tow, were approaching each other at the entrance to Buffalo Harbor, the barge and scow collided, doing slight damage to the barge.

October 31.—While tug *Oneida* was towing 2 canal boats in Buffalo Harbor, the towline parted and 1 of the canal boats struck a dock and sunk.

November 4.—While steamer *A. B. Wolvin* was being towed stern first through Buffalo Harbor, the towline parted and steamer slewed and struck steamers *John Plankington* and *Charles Weston*, doing some damage to steamer *John Plankington*.

November 4.—While steamer *Eastern States* was on the voyage from Detroit to Buffalo, the heavy seas stove in the deck at the amidship gangway, doing damage to the amount of $500.

November 6.—Steamer *Owego* encountered a heavy storm near Long Point, Lake Erie; the machinery became disabled, and steamer rolled heavily, losing smokestack, exhaust pipe, and whistle. The vessel was gotten under Long Point, temporary repairs made, and she proceeded to Cleveland, Ohio. Damage estimated at $3,000.

November 14.—In the evening police patrol steamer *Grover Cleveland* was in collision with steamer *Saranac* in the Buffalo Harbor, resulting in some damage to the first-named vessel. Case investigated; decision December 1, suspending for 30 days each the licenses of Thomas F. Morin, master and pilot of steamer *Grover Cleveland*, and Henry Durker, master and pilot of steamer *Saranac*, for violation of the pilot rules. Captain Morin appealed to the supervising inspector, ninth district.

November 18.—Fire broke out in the engine room of steamer *Pascal P. Pratt* about 9 a. m., when she was in the vicinity of Long Point, Lake Erie. The flames got beyond control, and the steamer was finally beached and burned to the water's edge. Loss, $55,000.

November 19.—About 2 a. m., while steamer *John A. McGean* was being towed stern first out of a slip at the Lackawanna steel plant the bow of the steamer came in contact with an unloading tower on the dock, which fell over, and 2 men who were working on the tower were killed. Damage to steamer, $100.

November 26.—Tug *Fred A. Lee* sprang a leak and sunk alongside a dredge to which she was moored, near the foot of Amherst street. Sinking occurred about 3 a. m., while no one was on board.

December 1.—While heaving up anchor of steamer *Iron King*, which had been lying to inside of Long Point, Lake Erie, the endless messenger parted and knocked 2 stanchions from under the bridge, and a part of one struck Albert Rose, a deckhand, rendering him unconscious. He was removed to a hospital at Port Dover, Ontario, where he died the same night of the accident.

December 2.—Steamer *Tempest* and barge *C. G. King* were moored to the north pier, Erie Harbor, Pa. Steamer *Juniata* entered the harbor and the swell caused the lines on the *Tempest* and *King* to part. The barge ran into the stern of the steamer *Tempest*, damaging the steamer to the amount of $2,500.

December 13.—While the tug *Yale* was towing the steamer *Yale* in the Buffalo Harbor the steamer took a sheer, and in attempting to straighten her up the tug listed, filled with water, and sunk, drowning fireman Fred Stiller. Case investigated December 23; decision December 30, suspending license of James Dixon, engineer of tug *Yale* for 60 days.

LOCAL DISTRICT OF OSWEGO, N. Y.

May 8.—About 11 a. m. steamer *Ringleader* of Alexandria Bay, N. Y., en route from Oswego to Alexandria Bay, when off Galoo Island, Lake Ontario, broke crank shaft of engine. Steamer was towed to Oswego by steamer *Frank D. Phelps*. Estimated cost of repairs, $90.

May 16.—Steamer *Ringleader* of Alexandria Bay, N. Y., en route from Chippewa Bay to Oswego, and when off Sisters light, River St. Lawrence, broke connecting-rod strap, crosshead end. Vessel was towed to Alexandria Bay by steamer *Island Belle*. Cost of repairs, $10.

June 18.—About 6.45 a. m., steamer *Arundell*, en route from Alexandria Bay to Charlotte and intermediate ports, ran on Granite State Shoal, River St. Lawrence. Efforts to haul her off failed, but subsequently she was pumped out, floated, and taken to dry dock at Kingston, Ontario, for repairs. Cost of repairs, $2,094. Investigation resulted in suspending the license of Joseph E. Meno, master and pilot in charge, for 30 days, for recklessness in attempting to navigate a vessel on waters on which he had no experience. Captain Meno appealed to supervising inspector on July 22, who sustained verdict of local inspectors.

June 26.—At night special Treasury Inspectors Day and Sessions found the motor boat *Celia* being operated and navigated by John G. Gladd, jr., without lights and life-preservers, and carrying passengers for hire. The matter was reported by them to the collector of customs at Cape Vincent and to us, and we have been advised that a fine of $200 was imposed. We communicated with Mr. Gladd and he admitted the facts, but stated that in his hurry to meet his party he forgot to put the lampsand life-preservers in the boat. His license was suspended for 30 days.

July 12.—About 4 p. m. the steam yacht *Nereid*, on a cruise among the islands of the River St. Lawrence, and when about 5 miles below Alexandria Bay, broke connecting rods of low-pressure cylinder, causing damage to the cylinder head, piston, and crosshead. No one injured. Estimated cost of repairs reported at $1,000.

July 15.—About 10.40 a. m., when the steamer *Ramona* was coming to the dock at Alexandria Bay, she ran into and damaged a motor boat lying out from the slip. Damage to motor boat estimated at $50.

July 15.—About 9.40 a. m. steamer *Ringleader*, en route from Cape Vincent to Oswego, and when about 15 miles off Galoo Island, Lake Ontario, broke strap on crosshead end of engine connecting rod. Disabled steamer towed to Chaumont. Estimated cost of repairs, $50.

August 2.—About 9.35 a. m., when steamer St. Lawrence, en route from Alexandria Bay to Clayton, was leaving Thousand Island Park dock, a motor skiff, occupied and operated by one woman, crossed the steamer's bow from starboard to port, so close that the steamer had to be stopped and reversed. The motor boat coming around on the port side of the steamer was swamped by the water from the paddle wheels and the woman thrown into the river. A boat was lowered, and Frank Shaw, one of the deck hands, jumped overboard and rescued the woman, who was taken ashore unhurt.

August 4.—About 3.40 p. m., steamer *S. N. Parent*, en route from Montreal to Oswego, without cargo, when entering Morrisburg Canal, was caught in the eddy, sheered and struck stone coping, stem on, bending stem and buckling the ends of the plates. Temporary repairs were made, and the vessel proceeded to Milwaukee, Wis., under an underwriter's certificate, for repairs.

August 25.—About 7 p. m. the freight steamer *Henry B. Hall* was en route from Ogdensburg to Charlotte, and when a little above Point Vivian, River St. Lawrence, the brackets on columns carrying the rock-shaft bearings gave way, causing damage to rock shaft, air pump, and condenser. Vessel subsequently towed to Ogdensburg. Estimated cost of repairs, $1,100.

November 26.—About 10.25 p. m. the steamer *Bennington*, of Buffalo, N. Y., en route from Ogdensburg to Chicago with general merchandise, grounded on Refugee Island, about 14 miles west of Ogdensburg, River St. Lawrence. Night dark and blowing a gale. Subsequently lightered and hauled off by other steamers and returned to Ogdensburg to be repaired. Amount of damage not yet ascertained.

December 7.—About 5 p. m. the steamer *Vivian*, en route from Ogdensburg to Waddington, with passengers and freight, struck a submerged pier while making a landing at Waddington, N. Y., and broke in 2 planks, causing her to sink in about 9 feet of water. This accident was due to a heavy sea and strong southwest wind. No loss of life. Damage to cargo, $336.61. Damage to vessel can not be estimated until she is floated.

LOCAL DISTRICT OF TOLEDO, OHIO.

March 6.—About 12.30 p. m., during a movement of the ice gorge, the steamer *Yuma*, 2,194 gross tonnage, which was moored at the docks in the Maumee River at Toledo, Ohio, broke her fastenings, causing her to collide with the Cherry Street Bridge, throwing one span of the bridge about 100 feet out of line. About 2 hours later, a further movement of the gorge caused the steamer to shift still farther and the span fell into the river. Harbormaster John A. Page was carried down with the bridge, but was rescued soon after. He is reported as having been seriously injured. A spectator was struck by one of the hawsers when it parted, and he died later in the hospital. Another sustained a broken leg. It has since been ascertained that the damage to the steamer *Yuma* was $4,883. Estimated damage to bridge, $30,000.

April 26.—At 9.10 p. m., steamer *Portage*, 1,020 gross tons, while entering Toledo Harbor, struck the west draw of the Pennsylvania Railroad bridge, Maumee River, Toledo, Ohio, causing damage to steamer amounting to $500. Amount of damage to bridge not known. The master reports that he blew 4 different times for the drawbridge to open; that the steamer's engine was stopped and backed and the anchor let go, in efforts to avoid the collision, and that after the steamer struck the draw a man came out of the house on the bridge and wanted to know why the whistle was not blown. No loss of life or personal injury reported.

May 31.—At 11.15 a. m., Mike Schropp, a passenger on steamer *Arrow*, while en route from Sandusky, Ohio, to Toledo, Ohio, fell overboard and was drowned. A lifeboat was lowered and sent out. The steamer was immediately stopped and backed, but the man sunk before help could reach him. According to newspaper reports of the casualty, the passengers threw life-preservers to the man, but he failed to grasp them; also that the man fell overboard through his own carelessness. While playfully attempting to jump overboard, his companions failed to grasp him; he missed his hold on the boat and fell into the water.

June 17.—Reported to the United States district attorney and collector of customs a violation of section 4467, United States Revised Statutes, on the part of A. J. Fox, master of the passenger steamer *Frank E. Kirby*, in refusing or neglecting to comply with our request for a list of number of passengers carried by said steamer within the local inspection district of Toledo, Ohio.

July 14.—At 11.03 a. m., Walter M. Gates, a passenger on the steamer *City of the Straits*, en route from Cleveland, Ohio, to Put in Bay, Ohio, while sitting on the rail of the boat suddenly fell overboard and was drowned. It is presumed that he was taken with an epileptic fit, to which it was reported he was subject. The steamer was immediately stopped and backed and a boat lowered, but although a search was made, no trace of him could be found. The drowning occurred 18 miles ESE. of Middle Island, Lake Erie.

July 15.—By the direction of the supervising inspector, began formal investigation of complaint filed by John D. Langell, manager of steamer *Alfred Mitchell*, against A. R. Beall, master of said steamer, charging neglect of said A. R. Beall to report to local inspectors a case of damage to property caused by the alleged stranding of said vessel on Mouse Island reef, Lake Erie, November 21, 1907. We have previously rendered a decision to the supervising inspector, and notified the said manager, John D. Langell, to the effect that after a careful review of testimony secured by correspondence from licensed officers of the vessel relative to the alleged stranding we could find no apparent violation of the law on the part of said master, A. R. Beall, consequently no cause for action.

July 19.—At 3.40 a. m., steamer *Colonel* grounded while leaving the port of Sandusky, Ohio, coal laden, but was released after lightering some of the cargo. After steamer was placed upon dry dock and examined, several plates were found to be badly bent. Cost of repairs, $3,365.

July 21–22.—By direction of the supervising inspector, investigated charges of negligence or incompetency preferred against William Ferguson, first-class pilot of steam vessels, while in charge of the navigation of the steamer *General Orlando M. Poe*, in allowing said steamer to ground on Hay Point, at the lower end of Mud Lake, July 13. We found said William Ferguson guilty of inattention to duty, gross negligence, and negligently indifferent to the navigation of said steamer, and consequently endangering the lives of persons and loss of property. The first-class pilot's license of said William Ferguson was revoked.

July 30.—About 7.45 p. m., steamer *Greyhound*, while en route from Detroit, Mich., to Toledo, Ohio, and while in the straight channel, Maumee Bay, was struck by the gasoline launch *West Wind*. The master of the steamer reports that he first observed the launch, which was without lights, on his starboard bow, estimated at 500 feet ahead and the same distance to starboard. The launch here changed her course to cross the bow of the steamer, whereupon the master of the steamer blew a danger signal and reversed the engine. The launch continued in this direction under full speed, and, on striking the steamer, was caught in her wheel and instantly sunk. A boat was immediately lowered and 5 men were rescued from aboard the launch. A search was made for another man who was said to have been aboard the launch, but without success. It was afterwards ascertained that this man, whose body was recovered later, was named Richard Mueller, and the launch the *West Wind*.

August 9.—Steamer *H. B. Hawgood*, while coming out of the Short Line dock at Sandusky, Ohio, was damaged to the extent of about $2,000, by striking and rubbing along on a rocky bottom. The damage to the steamer included her bottom plates, frames, and shaft.

August 16.—About 11 p. m., a passenger on steamer *A. Wehrle, jr.*, named William Link, jumped overboard when near Sandusky, Ohio, and was drowned. He was under arreast for raising a disturbance, and at the time, was in charge of 2 police officers, but he broke away from them. The steamer's headway was stopped and a lifeboat lowered, and a thorough search was made for him, but without success. It was supposed he had escaped safely, being an expert swimmer, but his body was found floating at 7 a. m., August 19.

August 17.—Steamer *John M. McKerchey* grounded while coming out from the pumping ground west of Turtle Island to the main channel, and broke 1 blade of her port wheel. Damage, about $150.

August 21.—While steamer *Manola* was coming out of the port of Sandusky, Ohio, bound for Milwaukee, Wis., she struck a rock, damaging her bottom to the extent of about $300. No lives lost or personal injury.

August 26.—Sand-dredge steamer *Syracuse* of Toledo, Ohio, sustained damages amounting to $5,000, by collision with submerged piles while going up Swan Creek, Toledo, Ohio. No lives lost or personal injury. The vessel is a total loss.

October 1.—About 3.45 a. m., steamer *John Duncan*, while coming down the Detroit River, ran aground when about 3,000 feet to southward and westward of Bar Point light-ship. The barge *Baltic*, in tow of *John Duncan*, ran into the steamer's stern, doing about $5,000 damage to her. No loss of life or personal injury reported.

October 9.—Robert Fox, a resident of Put in Bay, while a passenger on steamer *Arrow*, en route from North Bass to Put in Bay Island, is supposed to have jumped overboard. The next morning, October 10, a pair of crutches, hat, and pair of glasses were found on the deck of the steamer by one of the crew. A son of Mr. Fox later identified these articles as those used by his father.

October 19.—About 10.45 p. m., freight steamer *David W. Rust*, 884 gross tons, was burned while lying at dock at Toledo, Ohio. The damage by fire, which, in our opinion, was of incendiary origin, we estimate at about $4,000. The steamer was not in commission at time of the fire. Hoseman McCullom, of the city fire department, is reported to have been badly injured while working at the fire.

October 26.—While leaving Toledo Harbor, in the straight channel, Maumee Bay, steamer *Charles Hubbard* approached a dredge at work on the ranges, in the center of the channel, with a mud scow attached to both sides of the dredge. The dredge signaled the steamer to check down and go slow, which signal was immediately answered, and steamer slackened speed immediately, but as she got close to the dredge and the starboard bank of the channel, the steamer's starboard bilge was on the bottom. The steamer's draft and low water at the time caused her to sheer toward the dredge, and to avoid a collision it was necessary to increase the steamers' speed as she passed the dredge. The steamer did not touch the dredge or scow, but the captain of the steamer reports that he has since ascertained that the suction of the steamer's wheel broke the swinging anchor of the dredge. In our opinion the accident was unavoidable.

November 5.—Received from the local inspectors at Detroit, Mich., reports of alleged violations of Rule VIII, pilot rules for the great lakes, on the part of licensed officers of steamers *Juniata* and *Philip Minch*, complaint against them having been made by licensed officers of steamer *Crescent City*. The alleged violations occurred near Bar Point, Lake Erie, August 23. The local board at Detroit states that it was under the impression that the alleged violations occurred within the Detroit district, but on November 4, 1908, upon comparing the testimony of witnesses on steamer *Juniata*, it was found that same occurred within the Toledo district.

November 6.—At 8.30 a. m., while coming out from the Hanna dock at Sandusky, Ohio, steamer *M. A. Hanna* grounded and did damage to her bottom. Temporary repairs were made and the steamer proceeded to her destination. It has since been ascertained that several plates had to be removed from the vessel's bottom, and the estimated amount of damage is placed at about $7,000.

November 11.—When coming up Lake Erie, near Colchester reef, steamer *William A. Rogers* struck some obstruction, doing some damage to steamer's bottom, in numbers 6 and 7 tanks. The vessel was placed upon dry dock. It has since been ascertained that the damage amounted to about $3,000.

November 14.—At 8.30 p. m., steamer *F. R. Buell* and consort *A. Stewart* stranded at Point Pelee, Canada. The vessels were released November 18. Cause of accident was thick weather with snow. No loss of life or personal injury reported.

November 17.—At 3.25 a. m., steamer *James P. Walsh* struck an obstruction in midchannel, Detroit River, about 1,800 feet south of Bar Point light-ship, doing some damage to the vessel's bottom. Cost ot repairs not reported.

November 17.—Concluded formal investigation of charge made by John D. Langell, manager of steamer *Alfred Mitchell*, against A. R. Beall, master of said steamer, for failure to report a case of stranding of said steamer on Mouse Island reef, Lake Erie, November 21, 1907. After a careful review of all the testimony of witnesses in this case, and weighing the evidence as a whole, we can find no apparent violation of law on the part of Captain Beall. Judging from the evidence adduced at this investigation, the charge made against him can not be sustained. The case is accordingly dismissed.

November 18.—Steamer *Mary H*, of Sandusky, Ohio, ran onto some rock east of the jetty, Sandusky Bay, which was dumped there by dumping scows, and caused her to leak. The steamer was placed upon dry dock for repairs. Cost of repairs, $75.

November 21.—About 5.40 a. m., while proceeding up Lake Erie, during foggy weather, steamer *John A. McGean* stranded north of Colchester, Canada. The steamer released herself in about an hour, and was later placed upon dry dock for repairs. It was afterwards ascertained that the damage amounted to about $3,000.

November 25.—At 8 a. m., when sand-dredge steamer *Protection* was ready to leave the pumping ground in Sandusky Bay, she drifted upon her anchor, or some hidden obstruction, which drove in a plank forward, causing a rent in the bow about 3 feet long, through which the water poured faster than it could be discharged. The steamer was beached, and allowed to fill, but was pumped out later by the steamer *Mary H.* A soft patch was put on and the steamer *Protection* then proceeded to her dock. No loss of life. The damage will not exceed $100.

December 4.—While being towed out of Toledo, Ohio, steamer *Joseph Sellwood* collided with the towing steamer *A. W. Colton.* It is reported that the towing steamer was left in charge of the mate, J. Cunningham, with an engineer and fireman on deck. While the pilot and rest of the crew were at dinner, the towing steamer took a sudden list to port. They all went on deck and the Captain ordered the towline cut. As the second engineer was about to cut the line, the mate of steamer *Joseph Sellwood* called to him several times not to do so, and same was not cut. The tug got across the steamer's bow, and was struck, and so damaged that it will be necessary to place her upon dry dock for repairs. Estimated cost of repairs, $1,000. The towline of steamer *Sellwood* was so short that it did not allow the tug to swing from one bow to the other. No loss of life or personal injury reported.

December 5.—About 6 p. m., steamer *Powell Stackhouse*, while entering the port of Sandusky, Ohio, and when about opposite the Big Four dock, struck some sunken obstruction, presumably a bowlder, doing some damage to her bottom. The vessel has since been placed upon dry dock, and a rough estimate obtained places the damage at about $1,000.

December 21.—About 10 a. m., while the towing steamer *American Eagle*, 110 gross tons, was being navigated on the Maumee River at Toledo, Ohio, she was discovered to be on fire, the origin of which has not been explained. The steamer was headed for the beach, and with the aid of steamer *Sheboygan* and the city fire department the fire was finally extinguished. The master's report estimates that the steamer is a total loss, and the estimated value, $10,000. No loss of life or personal injury reported. Investigation to be made.

December 28.—Concluded investigation of charge of violation of Rule VIII, pilot rules, made by licensed officers of steamer *Crescent City* against licensed officers of steamer *Juniata* and *Philip Minch*, which violation is alleged to have occurred on August 23, between Bar Point light-ship and Detroit River light-house. Judging from the evidence adduced at this investigation, we can not find wherein there has been any apparent or intended violation of the rules, as charged. The licensed officers of steamers *Juniata* and *Philip Minch* were exonerated and the case dismissed.

December 30.—Concluded investigation of fire on towing steamer *American Eagle*, which occurred while said steamer was being navigated at Toledo, Ohio, December 21. It has been impossible to ascertain the origin of the fire. However, we find James McKinley, master of said steamer, guilty of unskillfulness in coping with emergencies or disaster arising from fire and also guilty of gross negligence and inattention to duty. His license was suspended for 90 days, also license of George W. Gillespie, chief engineer of said steamer, suspended for 60 days for negligence and inattention to duty in failing to have the fire pump on said steamer in proper condition to pump water at all times while she was being navigated. Both suspensions commenced December 30.

TENTH SUPERVISING DISTRICT.

LOCAL DISTRICT OF NEW ORLEANS, LA.

January 8.—About 4.39 p. m., steamship *Creole* grounded in 22 feet of water on the bar at South Pass. Cause of grounding, failure of ship to respond to helm in making a short turn. Vessel remained aground until 6.50 p. m. the following day, and was docked in New York, January 16, when it was found that no damage had been sustained.

January 13.—While underway in Lake Salvador, gasoline launch *City of Hartford* took fire and burned. Total destruction, amounting to about $700. No lives lost.

January 20.—About 7.30 a. m., fire was discovered under the pilot house of steamer *St. James.* Origin of fire unknown. Fire was extinguished without any damage, except slightly charred under the pilot house. No one injured.

January 20.—The steamer *Arkadia*, while on her last passage from Porto Rico to New Orleans, encountered very heavy weather, which apparently strained the ship very much. Upon examination of vessel on arrival at New Orleans, inspectors withdrew certificate of inspection pending completion of repairs ordered.

January 23.—About 11 p. m., steamer *V. L. Watson* sunk in Bayou Willow while tied to the bank. The cook, Harry Stanton, was caught in his room and drowned. Boat has since been raised. Loss about $1,000.

January 23.—About 1.15 p. m., while en route from Latanier landing to Melville, La., steamer *Greyhound* struck a hidden, floating obstruction, knocking a hole in the hull forward. A line was put to the bank and crew and passengers put ashore safely. Steamer sunk up to the roof. Loss about $3,000. Insurance, $2,500. Vessel may be raised.

January 28.—About 3 a. m., steamer *Mary F. Golden* burned to the water's edge. Fire originated in kitchen stove. No lives lost. Property loss about $3,500. Insurance, $1,800.

January 30.—About 5.30 p. m., steamer *Gem* sunk in Beouff River about 1 mile above Browns landing. No lives lost. Amount of damage unknown.

February 15.—About 4.25 a. m., steamer *Rosalie M.* was caught in a storm which blew her into the bank. Syphons and crew worked to keep the boat afloat, but without avail, as boat sunk within 10 minutes after springing a leak. No lives lost. Loss to boat about $8,000. Insurance, $3,000.

February 21.—On investigation of charges against Arthur Gray, pilot of steamer *A. Baldwin*, he was found guilty of violation of Rule II, pilot rules of western rivers, and his license suspended for a period of 15 days.

February 26.—Between 5 and 5.30 a. m., a negro, Alphonse Plaisance, disappeared from launch *Tulane* about 2 miles below Lafourche Crossing Bridge, and has not been seen since. He was a deck hand on the launch *Tulane*.

March 2.—While lying at the wharf, Port Eads, La., steamer *Mark A. Morse* was damaged about $500 by fire, caused by the explosion of a lamp in the engine room.

March 11.—Charges having been received that steamer *Jerome* operated on February 22 and 26, and on March 3, without proper licensed officers, same were forwarded to the United States district attorney at New Orleans, La.

March 13.—Engineer J. N. Irvin, of the steamer *Ascension*, being charged with violation, on March 5, of section 4441, Revised Statutes, of negligence and inattention to duty—pleaded guilty, and his license as engineer was suspended for 5 days for allowing gauge cock to get out of order.

March 18.—On March 1, 1908, charges were preferred against Capt. Fred H. Thompson of the steamship *Morgan*, alleging violation of sections 4450 and 4439, Revised Statutes, being intoxicated and allowing equipment to deteriorate. On investigation of said charges, same were found not sustained by the evidence, and Captain Thompson not guilty, as charged.

March 21.—About 8 a. m., while steamer *Little Rufus* was backing out from landing at the mouth of Tensas River, with 2 barges in tow, 1 on her bow and 1 on starboard side, the current from the wheel caused a skiff containing 2 men to upset. James Yeager, colored, was swept under the barge on starboard side and did not rise again. The other person caught the stern line leading from steamer to barge and saved himself. Steamer proceeded on her way, after waiting a sufficient length of time for the man to rise.

March 27.—Steamer *T. L. Morse* caught fire between the hours of 1 and 2 a. m., and was damaged to the extent of about $2,500. Insurance, $1,200. Origin of fire unknown.

April 10.—Suspended the license of W. D. Platt, master of steamer *Handy*, at Monroe, La., for 15 days, for negligently allowing the equipment of steamer *Handy* to deteriorate, in violation of section 4405, Revised Statutes.

April 11.—*Steamship Marie*, bound from Galveston, Tex., to New Orleans, La., D. E. Rodick, master, W. F. Short, pilot, while rounding Algiers Point, ran into a water whirl and ship would not answer to helm, and collided with *Steamship Monviso* and the levee. Both ships slightly damaged.

April 19.—About 1.20 p. m., while coming to anchor in Port Real, Porto Rico, in charge of pilot, Carlo Daniel, the *Steamship Harry Luckenbach* ran over her anchor and stove a hole in her bottom, port side, under No. 1 ballast tank, about 14 by 7 inches, causing the tank to fill in a few minutes. On receipt of this report, May 8, steamer was ordered to dry dock, and certificate of inspection withdrawn pending repairs.

April 21.—About midnight, steamer *Eulallie C.* caught fire at Morgan City, La., and burned to the water's edge. Vessel probably a total loss. Fire originated with explosion of lamp in the watchman's hands in the engine room. No lives lost.

April 21.—About 1.00 a. m., while entering South Pass, *Steamship Windber* grounded, remaining aground until 11.38 a. m., of the 22d, when vessel was floated with the assistance of tugs *Taurus* and *Underwriter*. No damage to the vessel. No lives lost.

April 23.—About 2.30 a. m., steamer *Gracie Kent* struck a hidden obstruction in Bayou Teche about a mile and a half below Baldwin and sunk in less than 1 minute in 11 feet of water. Robert Person, deck hand, of Jeanerette, La., missing, is supposed to have been drowned.

April 27.—About 11.55 a. m., just after steam ferryboat *Thomas Pickles* left the New Orleans side, Canal street ferry, Miss Josephine Jochon jumped overboard and was drowned. Lifeboat was promptly lowered and floats thrown overboard, but the woman refused assistance. She left a letter behind stating her intention to commit suicide.

May 7.—While attempting to make fast to dredge *No. 9* at Burrwood, La., a strong cross current threw tug *Stella* against the dredge knocking a hole in the stern of the *Stella.* With the assistance of steamer *Elwood,* the *Stella* was grounded in 10 feet of water, and temporary repairs made, so that the *Stella* might proceed to New Orleans for permanent repairs. Vessel arrived at New Orleans May 10, and was docked for repairs. Amount of damage, unknown.

May 8.—Application being made for change of character of steamship *Dover* from freight to passenger, inspectors examined the vessel and found some very thin plates in the run of the vessel. Thereupon the certificate of inspection was withdrawn, and vessel ordered dry docked and 5 plates removed and replated.

May 9.—While crossing on barge *Chas. Hyde,* Natchez to Vidalia, La., on the morning of May 9, assistant inspectors went aboard tug *Elizabeth Hyde,* which was towing the barge, and found an unlicensed man, Willie Rosslin, in charge of the engines of the *Elizabeth Hyde,* the regular engineer getting aboard after the barge had crossed to Vidalia, La. Case reported to the United States district attorney at Jackson, Miss.

May 10.—On reinspection of barge *Chas. Hyde* at Natchez, Miss., assistant inspectors found same operating without crew, being manned by the crew of tug towing her, viz, *Elizabeth Hyde.* Case reported to the collector of customs at Natchez, Miss.

May 11.—Charges preferred by R. A. Smith that gasoline launch *Addie* was operating and carrying passengers for hire without licensed officer, at foot of Poland street, New Orleans, La., were forwarded to the collector of customs, New Orleans, La., for action, as required by section 4496, Revised Statutes.

May 18.—On investigation of charges of violation of section 4439, Revised Statutes, preferred against P. B. Portwood, of intoxication while on duty as master of steamer *Henry Sheldon* on April 27, investigation held at Vicksburg, Miss., May 18, inspectors found that said Portwood was not guilty of intoxication, as charged. They found, however, that for 30 minutes, approximately, said Portwood left the wheel of the steamer *Henry Sheldon,* over 100 gross tons, in charge of a pilot licensed to take charge of steamers of only 100 gross tons and under, said Portwood going to bed for such period of time. License of Portwood suspended for 15 days.

May 28.—About 6 p. m., steamer *Bertha C.* tied to the bank at Butte la Rose, La., for the night. The next morning, as engineer was going to raise steam, he found water in the hull too high to allow steam to be raised. Water was then coming in so rapidly that the steamer sunk in about 10 minutes, breaking the line by which she was moored to the bank, and sliding about 60 feet offshore into water 60 feet deep. Loss to cargo, $400. Damage to boat, unknown. No lives lost.

May 30.—Steamer *Jerome,* while tied to the bank at Port Hickory, La., on May 5, heavily loaded with coal, was struck by a heavy wind which caused her to list and take in water so that she sunk in 9 feet of water. No lives lost. No insurance. Amount of damage unknown, as vessel has not, as yet, been raised.

June 4.—On investigation of charges to the effect that on April 29, Engineer J. E. Huffman was intoxicated and misbehaved on steamer *Wm. Edenborn* at Angola, La., inspectors found Mr. Huffman guilty, as charged, in violation of section 4441, Revised Statutes, and suspended his license as engineer for a period of 60 days.

June 9.—About 8.53 a. m., Miss N. Blake deliberately jumped overboard from the ferry steamer *Thomas Pickles.* Attempts to reach her in boat were futile, as she sunk before she could be reached.

June 9.—While motor vessel *Anita D.* was en route to Covington, La., from New Orleans, La., on June 9, she encountered a heavy squall, and one of the sailors, while attending to the foresail, fell overboard and was drowned.

June 20.—Having received a report that steamer *Des Plaines,* on May 23, 25 and 30, carried more passengers than allowed by her certificate of inspection, the matter was referred to the collector of customs, Natchez, Miss., for action in the matter.

August 14.—Steamship *Columbia,* while laid up in New Basin, New Orleans, La., took fire and was destroyed. Ship was a total loss; amount of insurance, $4,500; value of steamer, $8,500. No cargo.

August 15.—J. H. Creath, master of steamer *A. M. Halliday,* charged with violation of section 4442, Revised Statutes, for intoxication in the harbor of New Orleans, La., July 31. Charge investigated August 5 and 6; and, the local inspectors disagreeing, the case was referred to the supervising inspector, who rendered a decision on August 15, finding Mr. Creath guilty as charged, and suspended his license for 60 days.

September 11.—Steamship *Berwind*, F. E. Dyer, master, while proceeding from New Basin, N. Y., to the sea, grounded in channel off Red Hook flats. No apparent damage. Vessel was floated with the assistance of tugs and proceeded on her voyage.

September 12.—During the reinspection of steamer *Hy Jacobs* at Morgan City, La., September 11, 1908, assistant inspectors found steamer operating with 1 master, 1 engineer and 1 boy, while the certificate of inspection calls for a crew of 5 when being operated not exceeding 13 hours out of 24. Matter reported to the collector of customs, Morgan City, La.

September 25.—Chief engineer's license of William E. Davies was suspended for a period of 10 days for violation of section 4441, Revised Statutes, for negligence while on watch on the tug *R. W. Wilmot*, September 14, causing steamers *Ellis* and *Parismina* to collide. Steamer *Ellis* was in tow of the tug *R. W. Wilmot.*

September 25.—Master's license of Thomas Moore, master of the steamer *Minnie Gorgas*, was suspended for a period of 90 days for violation of section 4441, Revised Statutes, for intoxication while in charge of said steamer at Morgan City, La., September 9, upon investigation of case September 24.

September 25.—Steamer *Brookhill*, certificated as ferry, reported for violation of section 2, Rule VII, rules and regulations, and section 4426, Revised Statutes, for having taken an excursion party from Baton Rouge, La., to Plaquemine, La., September 17, without permit. Case reported to the collector of customs, New Orleans, La.

October 2.—Tug *Tempest*, while anchored in canal at Vicksburg, Miss., Dave Hicks, night watchman on board, caught fire through her flame-bed door, burned to the water's edge, turned over and sunk. Loss on boat, $8,000; insurance, $3,000. No lives lost.

October 9.—An unknown man of a party of 9, all of whom were drinking, aboard the tug *Iola*, which was towing a barge of fuel oil from New Orleans, La., to South West Pass, walked to stern of tug and jumped overboard. Tug was stopped and search made for him for about 2 hours and a half, but body could not be found. He is supposed to have drowned.

October 19.—Steamer *Amy Hewes*, while proceeding up Bayou Teche, at about 5.30 a. m., struck an unseen obstruction, probably a snag, and knocked a hole 6 inches in diameter in forward port side, and sunk in 7 feet of water. Vessel was raised on October 20, and proceeded to Jeanerette, La., for repairs. There were no casualties and very little damage.

October 22.—Tug *Iola*, at 4 p. m., having in tow barge *Edward*, left Gulf Refining Company's dock, Gretna, La., with 12 seamen on board, en route to Southwest Pass. John Scheffler, one of the seamen, who was drinking, is supposed to have fallen overboard and drowned, as he was cautioned several times to sit down, and afterwards he could not be found. Tug was stopped and search made for him, but without success.

October 31.—Steamer *H. A. Harvey, jr.*, of Brasher, La., was totally destroyed by fire at Prophet Island, La., at 8.30 p. m. Origin of fire, unknown. Value of boat, $3,000. No insurance.

November 1.—Courtney Sherman, a roustabout on the steamer *Concordia*, while going ashore at Fish Pond Landing, La., fell off the stage and drowned. The current was very strong and carried him under the boat. He did not come to the surface again.

November 4.—Gasoline motor vessel *Jerry*, of 45 gross tons, whose certificate of inspection expired October 7, and at that time laid up at Gulfport, Miss., proceeded from that point to New Orleans, La., November 4, 1908, on an expired certificate of inspection. Case was reported to the collector of customs at New Orleans, La.

November 5.—Steamer *Ruth*, with a crew of 6, at 5 p. m., left Morgan City, La., for Des Allemands, La., and proceeded down the Atchafalaya to the cut-off, where she laid up for the night. At about 11 p. m. fire was discovered on board, and it caught near the furnace doors. After burning to the water's edge, the hull sunk in about 20 feet of water. Vessel was valued at $3,000. Insurance, $2,000. No loss of life.

November 8.—The steamer *F. J. Luckenbach*, while leaving the wharf at New York bound for Porto Rico, met with an accident to her machinery, and on investigation it was found that a low-pressure valve was broken, caused by a large bolt. Could not account for the bolt being in the steam chest. W. A. Harvey, master, and L. B. Wellman, chief engineer, were charged with violation of section 4448, Revised Statutes, and section 23, rules and regulations, for failing to report accident. Master and chief engineer both pleaded guilty at investigation December 16 and were reprimanded. Amount of damage unknown. No lives lost.

November 14.—On investigation of charge of violation of section 4442, Revised Statutes, for intemperance while on duty on the steamer *Natchez*, en route between New Orleans, La., and Natchez, Miss., filed against William D. Bishop, Mr. Bishop was found not guilty as charged.

November 21.—At about 11 a. m., steamer *H. M. Carter*, while proceeding up the Mississippi River near Plaquemine, La., was wrecked by the explosion of her starboard boiler, the vessel taking fire and being totally destroyed. It was assumed, as the

Mississippi was very muddy just prior to, and at the time of this explosion, and as the boilers were washed on November 14, and from evidence adduced at the investigation, that accident was caused by an accumulation of mud and scale in the boiler, causing the third sheet to bag until it ruptured. Boilers were not accessible to inspectors, the vessel having sunk after burning to the water's edge. Value of vessel, $15,000; insurance (covering loss by boiler explosion), none. Eleven lives lost, 2 white and 9 colored persons, all members of the crew. Case investigated from November 24 to December 2.

November 30.—Steamer *Brookhill*, while tied up at her docks in Baton Rouge, La., in a strong wind, got a snag in between the hull and the float and snagged a hole in her side, causing her to sink in 30 feet of water. Vessel has been raised and repaired. Amount of insurance, $1,500, which fully covered damage.

December 8.—At 4 a. m., Jupiter light-house bearing south by west, one quarter west, 14 miles, a sudden jar was felt as if the steamer *Joseph W. Fordney* had struck a log or submerged wreckage. Later, by vibration, concluded that ship had damaged her propeller. On arrival at New Orleans, La., vessel was docked and 1 propeller blade and several stud bolts were found missing, also that 1 other blade was loose. Damage to vessel, $8,000. Fully insured. No lives lost.

December 16.—While motor vessel *Dependent* was proceeding up the Mississippi River, at 12.45 p. m., December 16, and near 60-mile point, George Powells, colored roustabout, fell overboard and drowned before assistance could reach him.

LOCAL DISTRICT OF APALACHICOLA, FLA.

April 13.—At 5 p. m., while the steamer *Fort Gaines* was underway on the Chattahoochee River, Albert Robinson, colored deck hand, accidentaly fell overboard and was drowned.

October 21.—Steamer *Colorado*, while underway in Tampa Bay dredge cut, was grounded to avoid collision with steamship *Alamo*. The *Colorado* was then discovered to be on fire. Tugboats were called to the assistance of the steamer and the fire put out. Amount of damage later reported at $30,000.

November 3.—While steamer *Mary Louise* was lying at anchor in Tampa Bay, Fla., Ralph Harkness, assistant engineer, started to work water out of engine when main steam pipe pulled off at flange at throttle valve and he was badly scalded.

November 16.—While the tug *Dewey* was underway from Southport to Millville, Fla., she collided with the U. S. mail boat *Sleeping Jane*. The mail boat came out from Panama City wharf and crossed the bow of the tugboat. Seeing the starboard light of the *Dewey*, and thinking she was headed for her, the *Sleeping Jane* turned to starboard and was struck. Damages to the mail boat reported at $57.50, which have been paid by owners of the tugboat.

November 19.—At 10 p. m., while the steamer *Tarpon* was leaving the port of Apalachicola, Fla., a small gasoline motor boat attempted to cross the bow of the steamer and was struck and completely destroyed. The collision occured at mouth of Apalachicola River.

LOCAL DISTRICT OF GALVESTON, TEX.

March 4.—Steamer *San Marcos* collided with the Norwegian steamer *Nor* while entering the port of Galveston, the former inward bound and the latter outward bound, during a dense fog. We find no blame attached to the pilots of these vessels, and said collision was unavoidable. Damage very slight to either vessel.

March 13.—At 7.30 p. m. steam dredge *Holm* collided with steamer *Progreso*. Damage to either vessel slight, and amount of damage not ascertained. Investigation concluded April 10. Decision not yet rendered.

March 25.—Steamer *Comal* arrived in Galveston with a furnace in one boiler collapsed. Said steamer sailed out of port on March 28, the chief engineer not reporting the accident to this office. When the *Comal* arrived back at this port on the 16th instant charges were preferred against Alfred Birks, the chief engineer on said steamer March 25, for violation of sections 22 and 23 of the rules and regulations, and an investigation was held on the same date the charges were presented, when it was proved that the above-named sections had been violated, and said engineer's license was suspended.

April 22.—William Lawler, a bargeman, accidentally fell overboard from the barge *Olive* while it was in tow of tug *Charles Clarke*. Life-preservers were thrown to him, but he failed to reach them. Boat was lowered and search made, but he sunk and was seen no more.

June 20.—Peter Jackson, deck hand, while securing a raft of timber in tow of steamer *Katherine*, bound for Port Arthur, fell overboard and drowned. All practical efforts were made to reach him with a boat, but he sunk and was not seen afterwards.

August 28.—Tug *Le Baron* took a line from port quarter of steamer *Ikabal*, and, when line was made fast, *Ikabal* started port propeller, sucking tow's bow in and cutting two planks about 5 feet under water and 8 feet back of stem. Locality, pier 20, Galveston, Tex. Tug repaired at a cost of $311.

September 16.—Steamer *Fannie* collided with oil barge of U. S. *Dredge No. 1*, ramming *Dredge No. 1* against skiff, while on Buffalo Bayou, near Houston, Tex. Investigation held October 29. The charges were not sustained by the evidence and the case was dismissed.

September 30.—George Hope, cook of the steamer *Annie*, disappeared, and it is the belief of the master that he fell overboard and was drowned. His body was recovered from the waters of Galveston Bay near where the *Annie* was at the time of his disappearance.

October 3.—The tugboat *Alamo* was totally destroyed by fire, caused by overflow of the oil pan in the furnace on the morning of October 3, in the Sabine River, while getting up steam. Estimated loss, $2,500.

October 22.—Tug *John H. Sterrett*, while towing 2 barges down Buffalo Bayou, between the hours of 9 and 10 p. m., stopped at Harrisburg, and then discovered that deck hand John Cline was missing. The tug immediately returned over same route to place where he was last seen, but he could not be found. His body was found in the bayou at Harrisburg October 25.

November 11.—Dredge boat *Holm* was sunk by collision with the dredge boat *Nereus* in the Grade Raising Canal, Galveston, Tex. The cause of the collision was shallow water and the dredge *Nereus* not answering her helm.

November 11.—Supplementary report to casualty report of collision between dredges *Holm* and *Nereus* in Grade Raising Canal, Galveston, Tex. Dredge boat *Holm* raised, put on the marine ways and repaired. Damage, $3,500.

November 27.—Steamer *Altamaha*, while proceeding from Texas City, Tex., to sea, struck a submerged obstruction, breaking all blades from the propeller and damaging the rudder. Repairs are being made. Estimated damage, $1,000.

November 30.—Steamer *D. Cawley*, while making a landing at Arthur City, Tex., struck the pier of a railroad bridge and turned over. The engineer, Ed Holman, was drowned. The cause of the accident as reported was due to the engineer not answering the backing bell. Loss of vessel, $2,000.

November 30.—Charges made against John Eichelberger, pilot of steamer *Annie*, alleging violation of rule 6 of the pilot rules for western rivers. Upon investigation, charges were found not correct, and the case was dismissed.

LOCAL DISTRICT OF MOBILE, ALA.

February 7.—F. W. McLaughlin, master, reports that while steamship *Manteo* was under way at sea, February 6, his chief mate, Daniel Houghton, accidentally fell overboard and drowned. The deceased was superintending the raising of ship's anchor when he lost his balance. Every means was taken to rescue him, but without success.

April 20.—Capt. C. H. Eldredge, master of steamer *Echo*, was seen by us at Pensacola, Fla., April 7, in an intoxicated condition while discharging the duties of master of said vessel, and for which offense we suspended his license for 30 days, as a violation of section 4439, Revised Statutes, viz, intemperance while on duty. When we took Captain Eldredge to task about his offense, he readily admitted his guilt.

April 22.—L. J. Keene, master, steam packet *American*, reports that on April 18, while vessel was ascending Mobile River, Bobb Green accidentally fell overboard and drowned. The deceased was a passenger on the vessel, and his intoxicated condition was discovered on his going aboard. He was cared for until he was thought to be all right, but when he was called for supper he could not be found, and it is supposed that he fell overboard and drowned, as no stops had been made up to the time he was missed.

May 6.—L. D. Meyers, master steamer *Clarence*, reports that while the vessel was laid up for the night of May 1, on east side of Mobile River, she caught fire and was totally destroyed. The watchman in charge could not account for the origin of the fire. Loss, $2,000. No lives lost and no one injured. Master and engineer state that a careful examination of the boat was made that evening before their leaving it.

July 1.—Steam packet *American*, L. J. Keene, master, reports that on June 28, on Alabama River, a deck hand of the vessel named Charlie Taylor accidentally fell overboard and drowned. Vessel was underway at the time and was immediately stopped and a skiff sent to the rescue, but without success.

July 28.—Steamer *Pleasure Bay*, L. P. M. Ressijac, master, reports the accidental drowning of deck hand Columbus A. Parks, in Mobile Bay, July 17. It is presumed that the deceased walked overboard while asleep, as the vessel was tied up for the night, and he was not missed until the next morning. His body was picked up on the beach opposite the vessel's berth.

August 22.—Peter Forbes, master steamer *Nimrod*, reports that on August 22, in Mobile River, the vessel collided with a small gasoline launch, operated by A. A.

Danenberg, causing the launch to careen and swamp, drowning said Danenberg. This case was investigated September 17, and the testimony showed that the launch man, Danenberg, was the sole cause of the collision, due to his recklessness and utter disregard for the pilot rules; and that he drowned before the tug's crew could reach him. We therefore exonerated the officers and crew of the tug *Nimrod*, as per report of September 22.

September 10.—Charles Martin, master steam tug *Dorothy*, reports that on night of September 6, while towing a model barge down Mobile River, a black object was sighted ahead which was at first thought to be adrift. It proved to be a skiff containing 2 men. It had no lights and was heading directly for the tug. Tug gave the danger signals and stopped its engines, clearing the skiff by about 8 feet. Warning was instantly given of the tow astern. The occupants of the skiff attempted to cross the bow of the barge in tow, and failing to do so caught hold of the towline, which caused the skiff to capsize. Life-preservers were thrown to them, but they made no effort to catch them or the skiff, which was floating near them, bottom up. They appeared to be in a stupor, making no effort to save themselves, only by swimming. Before the tug reached them they went down. This case was investigated September 19, and the officers and crew of the *Dorothy* were exonerated, the testimony showing that the casualty was due entirely to the recklessness of the deceased men, and that all assistance possible was rendered them.

September 16.—L. J. Keene, master steamer *American*, reports the accidental drowning of deck hand Willie Jackson in Alabama River, September 7. The vessel was underway at the time, and all assistance possible was rendered him, but without success.

October 3.—James L. Risk, master steamship *Rio Grande*, reports that on morning of October 2, while lying at her dock, Mobile River, a lamp exploded in the hold of the vessel, causing the cotton therein to become ignited. The crew immediately responded to the fire alarm and fought hard to quench the flames, but the smoke was so intense and the fire gained such rapid headway that the master considered it expedient to sink the after part of the vessel to arrest further progress of the fire. The vessel was afterwards pumped out and proceeded on her voyage. The vessel suffered no material damage by the fire. Damage to cargo is not known. No lives lost and no one injured.

November 28.—G. W. Quarels, master steam packet *John Quill*, reports that on afternoon of November 24, while vessel was backing out from her berth at Mobile, Ala., she ran down the gasoline launch *Barbara C.*, which was in charge of operator and navigator John Smith. The steamer struck the launch just as her engines stopped. The launch was drifting at the time, it is thought. The launch went down immediately, and its passengers climbed on the wheel of the steamer. No lives lost and no one injured. No report has been received from the launch. Case will be investigated.

LOCAL DISTRICT OF SAN JUAN, P. R.

November 24.—While on a special visit to the ferryboat *Encarnacion*, Mr. Hall, local inspector of hulls, found the safety valve clamped down. An investigation of this case was held on November 26, and the license of Engineer Gonzales, engineer in charge, was revoked under the provisions of section 4450, Revised Statutes. The penalty was modified to a suspension of license for 60 days by the supervising inspector of the tenth district. This case has been reported to the United States attorney, and a lockup safety valve placed on the boilers of this vessel.

November 30.—Upon investigation of charges preferred against Juan Torrez, a licensed pilot, his license was suspended for a period of 30 days for negligence and unskillfulness in the navigation of the motor vessel *Ana Maria* under his charge, whereby the lives of the passengers were endangered.

December 2.—Upon a reinspection of the steamer *Coamo* we found 2 life rafts in such bad condition as to render them useless. The number of passengers allowed to be carried by the vessel's certificate of inspection was reduced by 34, or from 230 to 194, that being the combined capacity of the 2 rafts. Local inspectors at New York, where vessel was last inspected, notified of our action.

December 3.—While the steamer *San Juan* was leaving the harbor of San Juan she collided with the dock, in attempting to avoid a collision with a schooner. Damage, about $300.

December 28.—At a reinspection of the Spanish steamer *Antonio Lopez* the life-preservers were found to be in bad condition, and the certificate of inspection was withdrawn and case reported to collector of customs at San Juan, P. R. The vessel was allowed to clear and sail without the certificate of inspection and carried a number of passengers from the port.

INSPECTION OF BOILERS OF UNITED STATES GOVERNMENT STEAMERS AND BUILDINGS.

In addition to the regular annual inspections, boilers on or for United States Government vessels and in United States Government buildings were inspected by officers of the Steamboat-Inspection Service during the year ended December 31, 1908, as follows:

Local inspection district, and name of vessel, building, or service.	Port where inspected.	Date inspected.	Boilers inspected.
San Francisco, Cal.:			
Steamers—			
Madrono	Oakland, Cal	Jan. 23	2
Buford	San Francisco, Cal	Jan. 24	2
Buford No. 1	do	Jan. 25	1
Sheridan	do	May 1	4
Sheridan No. 1	do	May 4	1
Crook	do	May 25	4
Crook No. 1	do	June 19	1
Sherman	do	July 20	4
Sherman No. 2	do	July 23	1
Light-ship No. 70	Yerba Buena Island, Cal	do	2
Light-ship No. 83	San Francisco, Cal	Aug. 8	2
Thomas	do	Sept. 19 Sept. 20	4
Thomas No. 1	do	Sept. 19	1
Thomas No. 2	do	do	1
Slocum	do	Sept. 24	2
Madrono	do	Dec. 24	2
Inspector	Alameda, Cal	do	1
Buildings—			
Battery Howe	Presidio, Cal	Sept. 25	1
Pumping station	do	do	2
Pumping station	Fort Miley, Cal	Sept. 28	2
Pumping plant	do	do	2
Electric plant	do	Sept. 30	1
Hoisting plant	Fort Barry, Cal	Oct. 6	1
Torpedo station	Yerba Buena Island, Cal	Oct. 14	1
Hoisting plant	Alcatraz Island, Cal	do	1
Hoisting plant	Angel Island, Cal	do	1
Quarry plant	do	do	1
Pumping station	Fort Barry, Cal	Oct. 21	1
Total			49
Portland, Oreg.:			
Steamers—			
Major Guy Howard	Astoria, Oreg	July 3	1
Umatilla	Celilo, Oreg	Oct. 28	1
Total			2
Seattle, Wash.:			
Steamers—			
Gedney	Seattle, Wash	Mar. 4	1
Explorer	do	Mar. 24	2
McArthur	do	do	1
Light-ship No. 67	do	May 9	2
Burnside	Tacoma, Wash	July 20	3
Burnside	Quartermaster, Wash	Oct. 16	1
Buildings—			
Fort Worden	Fort Worden, Wash	Aug. 20	3
Fort Flagler	Fort Flagler, Wash	Aug. 21	4
Fort Casey	Fort Casey, Wash	Aug. 22	5
Fort Worden	Fort Worden, Wash	Aug. 21	1
Total			23

INSPECTIONS OF BOILERS OF UNITED STATES GOVERNMENT STEAMERS AND BUILDINGS—Continued.

Local inspection district, and name of vessel, building, or service.	Port where inspected.	Date inspected.	Boilers inspected.
Juneau, Alaska:			
Vessels—			
Taku	Orca, Alaska	June 7	1
Lt. C. V. Donaldson	Valdez, Alaska	June 11	1
Total			2
New York, N. Y.:			
Vessels—			
Canby	New York, N. Y	Dec. 22 Dec. 23	1
Daisy	Tompkinsville, N. Y	May 29	1
Ellis Island	Brooklyn, N. Y	June 15	2
Gardenia	Tompkinsville, N. Y	June 3	1
General Joseph E. Johnston	Jersey City, N. J	Sept. 24	2
General Meigs	do	Aug. 7	2
Immigrant	Ellis Island, N. Y	Aug. 26	1
John Rogers	Tompkinsville, N. Y	May 11	1
Iris	Port Richmond, N. Y	Nov. 9 Nov. 11	1
Larkspur	Tompkinsville, N. Y	Sept. 19	2
Light-ship No. 51	do	May 20	2
Light-ship No. 68	do	June 25	1
Mistletoe	do	Sept. 2	1
Ordnance	New York, N. Y	Sept. 1	1
Pansy	Tompkinsville, N. Y	Aug. 14 Aug. 31	1
Buildings—			
Court-house and post-office	New York, N. Y	Dec. 7 Dec. 22	2
Do	Newark, N. J	Oct. 10 Oct. 12	3
Immigration station	Ellis Island, N. Y	June 12 June 17 Oct. 9	8
Subtreasury	New York, N. Y	Oct. 10	1
Military Academy	West Point, N. Y	July 10 July 11 July 14 July 16 July 18 July 22 July 25 Aug. 8 Aug. 29 Sept. 19	35
Total			69
Boston, Mass.:			
Steamers—			
Mayflower	Boston, Mass	Jan. 11	2
Light-ship No. 90	Quincy, Mass	Apr. 22	2
Light-ship No. 91	do	May 12	2
Light-ship No. 92	do	May 27	2
Light-ship No. 93	do	June 8	2
Capt. De Hart	Boston, Mass	June 16	1
Light-ship No. 54	do	July 1	2
Col. Harwood	do	Sept. 23	1
Light-ship No. 47	do	Nov. 3	2
General Robert Anderson	Quincy, Mass	Nov. 23	1
General Richard Arnold	do	Dec. 7	1
General R. B. Ayres	do	Dec. 29	1
Buildings—			
Fort Standish	Boston Harbor	June 2	1
Fort Andrew	do	do	1
Fort Revere	Hull, Mass	June 9	2
Fort Warren	Boston Harbor	June 16	2
Fort Strong	do	June 23	3
Fort Heath	Winthrop, Mass	July 10	1
Fort Banks	do	July 11	1
Immigration station	Boston, Mass	Aug. 10	1
Total			31

INSPECTIONS OF BOILERS OF UNITED STATES GOVERNMENT STEAMERS AND BUILDINGS—Continued.

Local inspection district, and name of vessel, building, or service.	Port where inspected.	Date inspected.	Boilers inspected.
Philadelphia, Pa.:			
Steamers—			
Zizania	Wilmington, Del	Mar. 20	2
Manzanita	Camden, N. J	May 11	2
Tulip	do	May 18	2
Kukuz	do	June 1	2
Cypress	do	June 8	2
Anemone	do	June 25	2
Orchit	do	do	2
Neptune	Wilmington, Del	July 2	1
U. S. C. C. towboat	do	July 27	1
Sequoia	Camden, N. J	July 10	2
Hibiscus	do	July 24	2
Light-ship No. 91	Edgemoor, Del	Aug. 15	1
Sunflower	Philadelphia, Pa	Sept. 14	2
Light-ship No. 52	Wilmington, Del	Sept. 16	1
Lieut. Crosby	Delaware City, Del	Oct. 12	1
Zizania	League Island, Pa	Nov. 28	2
Light-ship No. 79	Wilmington, Del	Dec. 12	1
Buildings—			
Mint	Philadelphia, Pa	Jan. 10	4
Do	do	May 12	4
Fort Du Pont	Fort Du Pont, Del	May 13	3
Fort Mott	Fort Mott, Del	do	5
Fort Delaware	Fort Delaware, Del	do	1
Total			45
New London, Conn.:			
Vessels—			
Cactus	New London, Conn	July 3	1
Light-vessel No. 48	Cornfield Point, Conn	July 17 July 24	2
Navy steam cutter (Naval Militia)	Springfield, Mass	July 20 July 27	1
Mansfield	New London, Conn	Aug. 31	1
Castle	do	Oct. 29	1
Total			6
Albany, N. Y.:			
Building—Watervliet Arsenal	Watervliet, N. Y	June 10 June 20	6
Portland, Me.:			
Steamers—			
Geranium	Little Diamond Island, Me	July 22 Oct. 24	2
Light-vessel No. 74	do South Portland, Me	Oct. 2 Oct. 8 Oct. 10	2
Light-vessel No. 78	Little Diamond Island, Me	Sept. 8	2
Lilac	do	Oct. 24	2
Petrel	Portland, Me	July 22 Oct. 13	1
Buildings—			
Fort Levett	Fort Levett, Me	Sept. 23 Sept. 26	3
Fort Lyons	Fort Lyons, Me	Sept. 16	1
Fort McKinley	Fort McKinley, Me	do Sept. 19	6
Fort Preble	Fort Preble, Me	Sept. 26	1
Fort Williams	Fort Williams, Me	Oct. 31 Nov. 3	2
Total			22
Providence, R. I.:			
Steamer—Light-ship No. 39	Newport, R. I	June 2	2
Building—Fort Adams	do	Apr. 15 June 9	4
Total			6

INSPECTIONS OF BOILERS OF UNITED STATES GOVERNMENT STEAMERS AND BUILDINGS—Continued.

Local inspection district, and name of vessel, building, or service.	Port where inspected.	Date inspected.	Boilers inspected.
Norfolk, Va.:			
Steamers—			
Juniper	Portsmouth, Va	Mar. 21	1
Violet	do	June 3	1
Phillips	Old Point Va	Aug. 27	1
Roanoke	Great Bridge, Va	Oct. 30	1
Buildings—Barracks	Fort Monroe, Va	June 4	4
Total			8
Baltimore, Md.:			
Steamers—			
Sprigg Carroll	Baltimore, Md	Jan. 29	1
Snag boat	Fredericksburg, Va	Apr. 28	1
Pile driver	do	do	1
Holly	Baltimore, Md	May 7	1
Maple	do	May 19	2
Light-vessel No. 72	do	June 6	2
Hydrographer	do	June 15	2
Light-vessel No. 71	do	July 6	3
Indiana	York, Pa	Aug. 10	1
Bache	Baltimore, Md	Aug. 28	1
Capron	Washington, D. C	Oct. 29	1
Isthmian Canal Commission 96	Sparrow Point, Md	Dec. 9	1
Jessamine	Baltimore, Md	Dec. 7	1
Bache	do	Dec. 30	1
Lieut. A. H. Cushing	Washington, D. C		1
Buildings—			
Fort Hunt	do	May 21	5
Fort Washington	do	do	10
Fort Howard	Baltimore, Md	June 2	5
Fort Carroll	do	do	2
Fort Armistead	do	do	1
Jail	Washington, D. C	June 17	5
Pension building	do	July 20	6
Post-office	do	Oct. 28	12
Fort Hunt	do	Dec. 1	1
Total			67
Charleston, S. C.:			
Steamers—			
Mercur	Wilmington, N. C	May 11	1
Coquet	do	do	1
Cynthia	do	do	1
Ajax	do	do	1
Hercules	do	June 22	1
Richard Caswell	do	do	1
Jacksonville	do	do	4
Cape Fear	do	Aug. 24	1
Building—Fort Sumter	Charleston, S. C	Dec. 28	1
Total			12
Jacksonville, Fla.:			
Steamer—Florida	Jacksonville, Fla	Jan. 13	2
St. Louis, Mo.:			
Steamers—			
Grace	Keokuk, Iowa	Mar. 23	2
Henry Bosse	do	do	2
Hecla	do	do	2
Lucia	Louisiana, Mo	Nov. 10	1
Lily	St. Louis, Mo	Nov. 2	3
Building—Marine hospital	do	Nov. 18	2
Total			12
Dubuque, Iowa:			
Steamers—			
Ruth	Illinois and Mississippi Canal, Silver Lake, near Milan, Ill.	Mar. 25	2
Drill boat No. 34	do	do	1
Drill boat No. 103	do	do	1
Vulcan (dredge)	do	do	1
Geyser (dredge)	do	do	1
Boom dredge No. 220	do	do	1
Apache (dredge)	do	do	1
Marion	Rock Island, Ill	Mar. 26	2

INSPECTIONS OF BOILERS OF UNITED STATES GOVERNMENT STEAMERS AND BUILDINGS—Continued.

Local inspection district, and name of vessel, building, or service.	Port where inspected.	Date inspected.	Boilers inspected.
Dubuque, Iowa—Continued.			
Steamers—Continued.			
Ajax (dredge)	Vicinity of Moline lock, opposite Moline, Ill.	Mar. 20	1
Mac	do	do	1
Emily	do	do	1
Drill boat No. 6	do	do	1
Dredge No. 5	Dubuque, Iowa	Apr. 26	6
Louise	do	May 14	1
Elinor	do	May 17	4
Fox	Head of Arsenal Island, opposite Moline, Ill.	May 26	1
Alert	Fountain City, Wis	July 16	1
Elsie	do	do	1
Dredge No 6	Dubuque, Iowa	Aug. 11	6
Fury	Alma, Wis	Aug. 12	2
Ada	do	do	1
Building barge No. 208	Dubuque, Iowa	Aug. 17	1
Vesuvius (dredge)	Fountain City, Wis	Nov. 12	2
Total			40
Duluth, Minn.:			
Building—Station, Bureau of Fisheries	Duluth, Minn	Dec. 12	2
Louisville, Ky.:			
Steamers—			
Emerald	Bowling Green, Ky	Apr. 7	1
Derrick boat No. 1	do	do	1
Wm. Preston Dixon	do	do	4
Gen'l O. M. Poe	Frankfort, Ky	May 7	4
Derrick boat No. 1	do	do	1
Derrick boat No. 2	do	do	1
Dredge boat No. 1	do	do	1
Dredge boat No. 2	do	do	1
C. A. Culberson	Jeffersonville, Ind	June 11	3
Green River (dredge)	Louisville, Ky	do	1
Hiwasse	Jeffersonville, Ind	July 15	2
Chilhowee	do	Aug. 6	2
R. C. McCalla	do	Oct. 20	2
Tombigbee	do	do	2
Buildings—			
Coal elevator	Frankfort, Ky	May 7	1
Concrete mixer	do	do	1
Yard engine house	do	do	1
Marine hospital	Louisville, Ky	Sept. 25	2
Service—U. S. Army	Frankfort, Ky	May 7	5
Total			36
Evansville, Ind.:			
Steamers—			
Derrick boat No. 1	Woodbury, Ky	Apr. 18	1
Derrick boat No. 2	do	do	1
Building—Warehouse	do	do	8
Total			10
Nashville, Tenn.:			
Steamers—			
Lookout	Paducah, Ky	July 7	2
King	do	do	1
Total			3
Memphis, Tenn.:			
Steamers—			
Titan	Memphis, Tenn	Mar. 17	3
Cleveland	Batesville, Ark	May 21	1
Arkansas	Little Rock, Ark	May 22	2
C. B. Reese	do	do	3
Delta	Memphis, Tenn	Aug. 21	4
Kappa	do	do	7
Mississippi	do	do	3
Patrol	do	do	2
Zeta	do	do	6
Quapaw	Black Rock, Ark	Aug. 28	3
Oleander	Memphis, Tenn	Sept. 22	2
Total			36

INSPECTIONS OF BOILERS OF UNITED STATES GOVERNMENT STEAMERS AND BUILDINGS—Continued.

Local inspection district, and name of vessel, building, or service.	Port where inspected.	Date inspected.	Boilers inspected.
Cincinnati, Ohio:			
Steamers—			
E. A. Woodruff (snag boat)	Cincinnati, Ohio	June 1	6
U. S. steamer Goldenrod	do	July 15	2
Indiana (dredge)	do	Dec. 7	2
Total			10
Pittsburg, Pa.:			
Steamers—			
T. P. Roberts	Pittsburg, Pa	Mar. 23	2
Congaree (dredge)	Meadville, Pa	Apr. 20	2
Slackwater	Pittsburg, Pa	May 11	2
Snag boat	Meadville, Pa	July 1	1
Building—			
Post-office and custom-house	Pittsburg, Pa	Aug. 13	3
Do	do	Sept. 12	3
Total			13
Detroit, Mich.:			
Vessels—			
Light-ship No. 61	Detroit, Mich	Feb. 21	1
Do	do	Mar. 21	1
Marigold	do	do	1
Do	do	Mar. 24	1
Aspen	do	Mar. 30	1
Crocus	do	Mar. 31	2
Light-ship No. 59	do	do	1
Amaranth	do	Apr. 18	2
Col. J. E. Lusk	do	May 16	1
Search	do	do	1
Hancock	do	June 23	1
Total			13
Chicago, Ill.:			
Vessels—			
Dahlie	Chicago, Ill	Mar. 27	1
Sumac	do	do	1
Do	do	Mar. 31	1
Dearborn	do	July 22	1
Total			4
Marquette, Mich.:			
Vessels—			
Circle	Houghton, Mich	Sept. 23	1
Light-vessel No. 60	Escanaba, Mich	Dec. 15	1
Total			2
Grand Haven, Mich.:			
Vessels—			
Light-vessel No. 62	Cheboygan, Mich	Apr. 15	1
Essayons	Muskegon, Mich	Nov. 12	1
Light-vessel No. 55	St. Ignace, Mich	Dec. 22	1
Light-vessel No. 56	Cheboygan, Mich	do	1
Light-vessel No. 57	do	do	1
Total			5
Cleveland, Ohio:			
Building—Marine hospital	Cleveland, Ohio	June 15 July 2	2
Buffalo, N. Y.:			
Service—West Point Military Academy	Erie, Pa	July 18	1
Oswego, N. Y.:			
Steamers—			
Guadalupe	Oswego, N. Y	Feb. 12	2
Gen. H. M. Robert	do	Mar. 14 Mar. 19 Mar. 23 Mar. 26	4
Do	do	Oct. 15 Oct. 19	2
Marengo	do	Apr. 27	1
			9

INSPECTIONS OF BOILERS OF UNITED STATES GOVERNMENT STEAMERS AND BUILDINGS—Continued.

Local inspection district, and name of vessel, building, or service.	Port where inspected.	Date inspected.	Boilers inspected.
Toledo, Ohio:			
Steamers—			
Burton (dredge)	Sandusky, Ohio	Apr. 6	2
Maumee (dipper dredge)	Port Clinton, Ohio	Apr. 7	1
Spear (dipper dredge)	do	do	2
Total			5
New Orleans, La.:			
Steamers—			
Hyacinth	New Orleans, La	Mar. 17	2
Ramos	do	do	1
Marengo	do	July 28	1
C. W. Howells (snag boat)	do St. Maurice, La	Aug. 4 Oct. 10	2
Control	Vicksburg, Miss	Sept. 23	3
Parker	do	do	2
Dry dock	do	do	2
Carpenter shop float	do	do	2
Machine shop float	do	do	1
Hydraulic grader (dredge)	do	Sept. 7	4
South Pass light-ship No. 42	New Orleans, La	Oct. 7	2
Benyaurd (dredge)	do	Dec. 17	4
Total			26
Apalachicola, Fla.:			
Steamer—Burnam	Key West, Fla	Aug. 8	1
Building—U. S. Army pumping plant	do	do	1
Total			2
Galveston, Tex.:			
Steamer—Magnolia	Galveston, Tex	Aug. 26	2
Mobile, Ala.:			
Steamers—			
Arbutus	Mobile, Ala	Jan. 11	1
Heald Bank light-ship No. 81	do	July 1	2
Pearl	do	July 6	1
Chickasaw	Pensacola, Fla	July 10	1
C. Donovan	Mobile, Ala	Aug. 10	1
Arbutus	do	Sept. 23	1
Bernard	do	Nov. 28	2
Total			9
Grand total			592

HULLS OF UNITED STATES GOVERNMENT VESSELS INSPECTED.

In addition to the regular annual inspections, hulls of United States Government vessels were inspected by officers of the Steamboat-Inspection Service during the year ending December 31, 1908, as follows:

Local inspection district.	Name of vessel.	Port where inspected.	Date inspected.
Juneau, Alaska	Lt. C. V. Donaldson	Valdez, Alaska	June 11
New York, N. Y	Ellis Island	Brooklyn, N. Y	June 15
Do	Immigrant	Ellis Island, N. Y	Aug. 26
Do	Iris	Port Richmond, N. Y	Nov. 11
Do	Mistletoe	Tompkinsville, N. Y	Sept. 2
Do	Ordnance	New York, N. Y	Sept. 1
Portland, Me	Light-vessel No. 74	Portland, Me	Oct. 8 Oct. 9
Louisville, Ky	Gen'l O. M. Poe (steamer)	Frankfort, Ky	May 7
Do	Dredge boat No. 1	do	Do.
Do	Dredge boat No. 2	do	Do.
Do	Derrick boat No. 1	do	Do.
Do	Derrick boat No. 2	do	Do.
Memphis, Tenn	Cleveland (steamer)	Batesville, Ark	May 21
Do	Arkansas (steamer)	Little Rock, Ark	May 22
Do	C. B. Reese (steamer)	do	Do.
Do	Quapaw (steamer)	Black Rock, Ark	Aug. 28
Cincinnati, Ohio	E. A. Woodruff	Cincinnati, Ohio	June 1
Point Pleasant, W. Va	Oswego (dredge)	Point Pleasant, W. Va	Apr. 6

Annual Certificates of Inspection and Certificates of Examination Issued to Foreign Steam Vessels by the Inspectors during the Fiscal Year ended June 30, 1909.

Nationality.	Number.	Gross tonnage.	Nationality.	Number.	Gross tonnage.
British	228	1,533,523	Austrian	5	31,582
German	63	615,041	Belgian	4	45,487
French	23	158,607	Greek	3	17,152
Italian	21	146,581	Russian	3	14,682
Dutch	20	120,575	Cuban	3	6,550
Norwegian	19	24,448	Brazilian	3	6,337
Japanese	11	91,546	Swedish	1	804
Spanish	7	35,052			
Danish	5	42,936	Total	419	2,890,903

NOTE.—The tables showing the inspection of domestic and foreign steamships made in the various inspection districts during the year, which appear in the separate edition of the Annual Report of the Supervising Inspector-General, have been omitted from this volume. See note on page 475.

REPORT

OF THE

LIGHT-HOUSE BOARD

180°
174°
160°
170°
180°

LIGHT-HOUSE BOARD OF THE UNITED STATES.

Organized in conformity to the Act of Congress approved August 31, 1852.

LIST OF MEMBERS ON JUNE 30, 1909.

Hon. CHARLES NAGEL, Secretary of Commerce and Labor, ex officio President.
Rear-Admiral ADOLPH MARIX, U. S. Navy, Chairman.
Col. WALTER S. FRANKLIN.
Dr. HENRY S. PRITCHETT.
Col. DANIEL W. LOCKWOOD, Corps of Engineers, U. S. Army.
Maj. JAMES B. CAVANAUGH, Corps of Engineers, U. S. Army.
Capt. KOSSUTH NILES, U. S. Navy.
Capt. H. T. MAYO, U. S. Navy, Naval Secretary.
Lieut. Col. THOMAS L. CASEY, Corps of Engineers, U. S. Army, Engineer Secretary.

EXECUTIVE MEMBERS OF THE BOARD.

Rear-Admiral ADOLPH MARIX, U. S. Navy.
Capt. H. T. MAYO, U. S. Navy.
Lieut. Col. THOMAS L. CASEY, Corps of Engineers, U. S. Army.

OFFICERS IN CHARGE OF LIGHT-HOUSE DISTRICTS, AND BOUNDARIES THEREOF, JUNE 30, 1909.

FIRST DISTRICT.

Inspector.—Commander C. M. FAHS, U. S. Navy, Portland, Me.

Engineer.—Lieut. Col. EDWARD BURR, Corps of Engineers, U. S. Army, Boston, Mass.

This district extends from the head of navigation on the St. Croix River, Maine, the northeastern boundary of the United States, to and includes Hampton Harbor, New Hampshire. It embraces all aids to navigation on the seacoast of Maine and New Hampshire and on all tidal waters between the limits named.

SECOND DISTRICT.

Inspector.—Capt. W. G. CUTLER, U. S. Navy, Boston, Mass.

Engineer.—Lieut. Col. EDWARD BURR, Corps of Engineers, U. S. Army, Boston, Mass.

This district extends from Hampton Harbor, New Hampshire, to Elisha Ledge, off Warren Point, Rhode Island, but does not include either the harbor or the ledge. It embraces all aids to navigation on the seacoast and tidal waters of Massachusetts excepting on the Taunton River and that part of Mount Hope Bay lying within the state boundary.

THIRD DISTRICT.

Inspector.—Capt. CHAUNCEY THOMAS, U. S. Navy, Tompkinsville, N. Y.

Engineer.—Maj. CHARLES L. POTTER, Corps of Engineers, U. S. Army, Tompkinsville, N. Y.

Assistant to the Inspector.—Commodore KARL ROHRER, U. S. Navy, San Juan, P. R.

This district extends from Elisha Ledge, off Warren Point, Rhode Island, to a point on the coast of New Jersey opposite Shrewsbury Rocks, and includes the ledge and the rocks. It embraces all aids to navigation on the coast of Rhode Island, Connecticut, and New York, and of New Jersey northward of a point opposite Shrewsbury Rocks, and all tidal waters tributary to the sea or Long Island Sound between the limits named, together with the aids on Whitehall Narrows and on the United States waters of Lakes Champlain and Memphremagog. It also includes the light-house service of Porto Rico and the adjacent islands, the waters of the islands lying east of the seventy-fourth meridian of longitude west of Greenwich, which were ceded to the United States by the Government of Spain by the treaty entered into on December 10, 1898, and the lighting and buoyage of Guantanamo Bay, Cuba.

FOURTH DISTRICT.

Inspector.—Commander HARRISON A. BISPHAM, U. S. Navy, Philadelphia, Pa.

Engineer.—Capt. L. H. RAND, Corps of Engineers, U. S. Army, Wilmington, Del.

This district extends from a point on the coast of New Jersey opposite Shrewsbury Rocks (but does not include the rocks) to and includes Metomkin Inlet, Virginia. It embraces all aids to navigation on the seacoast of New Jersey, Delaware, Maryland, and Virginia, and the tidal waters tributary to the sea between the rocks and the inlet.

FIFTH DISTRICT.

Inspector.—Commander ROBERT L. RUSSELL, U. S. Navy, Baltimore, Md.

Engineer.—Maj. W. E. CRAIGHILL, Corps of Engineers, U. S. Army, Baltimore, Md.

This district extends from, but does not include, Metomkin Inlet, Virginia, to and including New River Inlet, North Carolina. It embraces all aids to navigation on the seacoast of Virginia and North Carolina between the limits named, all of Chesapeake Bay, the sounds of North Carolina, and tributary waters.

SIXTH DISTRICT.

Inspector.—Commander J. H. HETHERINGTON, U. S. Navy, Charleston, S. C.

Engineer.—Capt. E. M. ADAMS, Corps of Engineers, U. S. Army, Charleston, S. C.

This district extends from, but does not include, New River Inlet, North Carolina, to and includes Jupiter Inlet light-station, Florida. It embraces all aids to navigation on the seacoast, bays, sounds, harbors, rivers, and other tidal waters of North Carolina, South Carolina, Georgia, and Florida between the limits named.

SEVENTH DISTRICT.

Inspector.—Commander F. M. BENNETT, U. S. Navy, Key West, Fla.

Engineer.—Maj. HENRY JERVEY, Corps of Engineers, U. S. Army, Mobile, Ala.

This district extends from a point just south of Jupiter Inlet light-station to and includes Perdido Entrance, Florida. It embraces all aids to navigation on the sea and Gulf coasts of Florida and on other tidal waters tributary to the sea and Gulf between the limits named.

EIGHTH DISTRICT.

Inspector.—Commander H. M. WITZEL, U. S. Navy, New Orleans, La.

Engineer.—Maj. HENRY JERVEY, Corps of Engineers, U. S. Army, Mobile, Ala.

This district extends from, but does not include, Perdido Entrance, Florida, to the southern boundary of Texas. It embraces all aids to navigation on the Gulf coast of the United States and tidal waters tributary to the Gulf between the limits named, together with those on the Mississippi River below New Orleans, and on Grand Lake and Lake Chicot.

NINTH DISTRICT.

Inspector.—Commander WEBSTER A. EDGAR, U. S. Navy, Chicago, Ill.

Engineer.—Maj. C. S. BROMWELL, Corps of Engineers, U. S. Army, Milwaukee, Wis.

This district includes all aids to navigation on Lake Michigan, Green Bay, and tributary waters lying west of a line drawn across the Straits of Mackinac just east of old Mackinac Point light-station, Michigan.

TENTH DISTRICT.

Inspector.—Lieut. Commander C. D. STEARNS, U. S. Navy, Buffalo, N. Y.

Engineer.—Col. WALTER L. FISK, Corps of Engineers, U. S. Army, Buffalo, N. Y.

This district extends from the mouth of St. Regis River, St. Lawrence River, New York, to the mouth of the River Rouge, Detroit River, Michigan. It embraces all aids to navigation on the United States shores and waters of Lakes Erie and Ontario and the upper part of the St. Lawrence, the Niagara, and the lower part of the Detroit rivers.

ELEVENTH DISTRICT.

Inspector.—Lieut. Commander CASEY B. MORGAN, U. S. Navy, Detroit, Mich.

Engineer.—Maj. CHARLES KEELER, Corps of Engineers, U. S. Army, Detroit, Mich.

This district extends from the mouth of the River Rouge, Detroit River, Michigan, to the westerly end of Lake Superior. It embraces all aids to navigation on the United States shores and waters of Lakes St. Clair, Huron, and Superior, the upper part of the Detroit River, the St. Clair and St. Marys rivers, and that part of the Straits of Mackinac lying to the eastward of a line drawn across the straits just to the eastward of Old Mackinac Point light-station, Michigan.

TWELFTH DISTRICT.

Inspector.—Commander W. G. MILLER, U. S. Navy, San Francisco, Cal.

Engineer.—Maj. CHARLES H. MCKINSTRY, Corps of Engineers, U. S. Army, San Francisco, Cal.

Assistant to the Inspector.—Lieut. VICTOR S. HOUSTON, U. S. Navy, Honolulu, Hawaii.

Assistant to the Engineer.—Maj. E. EVELETH WINSLOW, U. S. Army, Honolulu, Hawaii.

This district extends from the boundary between California and Mexico to the boundary between California and Oregon. It embraces all aids to navigation on the seacoast, bays, rivers, and other tidal waters of California. Since January 1, 1904, it has included the light-house service of Hawaii, under executive order dated December 28, 1903; the light-house service of the Midway Islands, under executive order dated December 9, 1904; the light-house service of the Island of Guam, under executive order dated May 13, 1905; and the light-house service of the American Samoan Islands, under executive order dated July 3, 1905.

THIRTEENTH DISTRICT.

Inspector.—Commander J. M. ELLICOTT, U. S. Navy, Portland, Oreg.

Engineer.—Maj. J. F. MCINDOE, Corps of Engineers, U. S. Army, Portland, Oreg.

This district extends from the boundary between California and Oregon to the northern boundary of the United States, and includes Alaska. It embraces all aids to navigation on the seacoast of Oregon and Washington, on the United States waters of Juan de Fuca Strait, Washington Sound, and Georgia Strait, and on the tidal waters tributary to the sea, straits, and sound between the limits named, together with those in Alaskan waters.

FOURTEENTH DISTRICT.

Inspector.—Lieut. Commander CLARENCE M. STONE, U. S. Navy, Cincinnati, Ohio.

Engineer.—Lieut. Col. WILLIAM T. ROSSELL, Corps of Engineers, U. S. Army, Cincinnati, Ohio.

This district extends on the Ohio River, from Cairo, Ill., to Pittsburg, Pa., 966 miles; on the Tennessee River 257 miles; on the Kanawha River 73 miles; and on the Monongahela River 127 miles; in all, a distance of 1,423 miles, and embraces all the aids to navigation within these limits.

FIFTEENTH DISTRICT.

Inspector.—Lieut. Commander M. L. **Miller**, U. S. Navy, St. Louis, Mo.

Engineer.—Col. W. H. **Bixby**, Corps of Engineers, U. S. Army, St. Louis, Mo.

This district extends on the Mississippi River from Cairo, Ill., to the head of navigation, 868 miles; on the Missouri River to Kansas City, Mo., 386 miles; and on the Illinois River from its mouth to LaSalle, Ill., 224 miles; in all, a distance of 1,478 miles, and embraces all the aids to navigation within these limits.

SIXTEENTH DISTRICT.

Inspector.—Lieut. Commander M. L. **Miller**, U. S. Navy, Memphis, Tenn.

Engineer.—Maj. M. S. **Walker**, Corps of Engineers, U. S. Army, Memphis, Tenn.

This district extends on the Mississippi River from New Orleans, La., to Cairo, Ill., 1,054 miles, and on the Red River a distance of 9 miles; in all, a distance of 1,063 miles, and embraces all the aids to navigation within these limits.

CHANGES IN PERSONNEL.

LIGHT-HOUSE BOARD.

Naval Secretary.—Capt. H. T. **Mayo**, U. S. Navy, relieved Capt. J. M. **Helm**, U. S. Navy, October 31, 1908.

Capt. S. P. **Comly**, U. S. Navy, was detached and Capt. **Kossuth Niles**, U. S. Navy, assigned to duty as a member of the Light-House Board on June 8, 1909.

Lieut. Col. **Harry F. Hodges**, Corps of Engineers, U. S. Army, was detached as a member of the Light-House Board July 13, 1908.

Maj. **James B. Cavanaugh**, Corps of Engineers, U. S. Army, assumed duty as a member of the Light-House Board September 28, 1908.

FIRST DISTRICT.

Inspector.—Commander C. M. **Fahs**, U. S. Navy, relieved Commander **John D. McDonald**, U. S. Navy, September 30, 1908.

SECOND DISTRICT.

Inspector.—Capt. W. G. **Cutler**, U. S. Navy, relieved Capt. C. J. **Bousch**, U. S. Navy, October 17, 1908.

THIRD DISTRICT.

Inspector.—Capt. **Chauncey Thomas**, U. S. Navy, relieved Capt. **John Rodgers**, U. S. Navy, July 3, 1908.

THIRD SUBDISTRICT.

Assistant to the inspector.—Commodore **Karl Rohrer**, U. S. Navy, relieved Capt. A. N. **Wood**, U. S. Navy, June 30, 1909.

FOURTH DISTRICT.

Engineer.—Maj. **Herbert Deakyne**, Corps of Engineers, U. S. Army, relieved Maj. C. A. F. **Flagler**, Corps of Engineers, U. S. Army, July 31, 1908.

Engineer.—Capt. L. H. **Rand**, Corps of Engineers, U. S. Army, relieved Maj. **Herbert Deakyne**, Corps of Engineers, U. S. Army, September 30, 1908.

FIFTH DISTRICT.

Engineer.—Maj. W. E. **Craighill**, Corps of Engineers, U. S. Army, relieved Col. R. L. **Hoxie**, Corps of Engineers, U. S. Army, August 7, 1908.

SIXTH DISTRICT.

Inspector.—Commander J. H. HETHERINGTON, U. S. Navy, relieved Commander HUGH RODMAN, U. S. Navy, December 15, 1908.

Engineer.—Lieut. Col. DAN C. KINGMAN, Corps of Engineers, U. S. Army, relieved Capt. E. R. STUART, Corps of Engineers, U. S. Army, July 13, 1908.

Engineer.—Capt. E. M. ADAMS, Corps of Engineers, U. S. Army, relieved Lieut. Col. DAN C. KINGMAN, Corps of Engineers, U. S. Army, August 8, 1908.

SEVENTH DISTRICT.

Inspector.—Commander F. M. BENNETT, U. S. Navy, relieved Commander B. TAPPAN, U. S. Navy, July 18, 1908.

EIGHTH DISTRICT.

Inspector.—Commander H. M. WITZEL, U. S. Navy, relieved Commander J. L. PURCELL, U. S. Navy, January 11, 1909.

NINTH DISTRICT.

Engineer.—Maj. C. S. BROMWELL, Corps of Engineers, U. S. Army, relieved Maj. W. V. JUDSON, Corps of Engineers, U. S. Army, April 5, 1909.

ELEVENTH DISTRICT.

Inspector.—Lieut. Commander CASEY B. MORGAN, U. S. Navy, relieved Capt. J. J. SMITH, U. S. Navy, November 30, 1909.

TWELFTH DISTRICT.

Inspector.—Commander W. G. MILLER, U. S. Navy, relieved Commander R. F. LOPEZ, U. S. Navy, April 30, 1909.

TWELFTH SUBDISTRICT.

Assistant to the inspector.—Lieut. Commander S. E. MOSES, U. S. Navy, relieved Lieut. Commander JAMES F. CARTER, U. S. Navy, July 30, 1908.

Assistant to the inspector.—Lieut. VICTOR S. HOUSTON, U. S. Navy, relieved Commander S. E. MOSES, U. S. Navy, April 10, 1909.

Assistant to the engineer.—Maj. E. E. WINSLOW, Corps of Engineers, U. S. Army, relieved Capt. C. W. OTWELL, Corps of Engineers, U. S. Army, November 12, 1908.

THIRTEENTH DISTRICT.

Inspector.—Commander C. F. POND, U. S. Navy, relieved Capt. P. J. WERLICH, U. S. Navy, July 8, 1908.

Inspector.—Commander J. M. ELLICOTT, U. S. Navy, relieved Capt. C. F. POND, U. S. Navy, June 30, 1909.

Engineer.—Maj. J. F. MCINDOE, Corps of Engineers, U. S. Army, relieved Lieut. Col. S. W. ROESSLER, Corps of Engineers, U. S. Army, July 11, 1908.

FIFTEENTH DISTRICT.

Inspector.—Lieut. Commander MARCUS L. MILLER, U. S. Navy, relieved Commander J. J. KNAPP, U. S. Navy, September 30, 1908.

Engineer.—Col. W. H. BIXBY, Corps of Engineers, U. S. Army, relieved Capt. G. R. LUKESH, Corps of Engineers, U. S. Army, September 30, 1908.

SIXTEENTH DISTRICT.

Inspector.—Lieut. Commander MARCUS L. MILLER, U. S. Navy, relieved Commander E. H. TILLMAN, U. S. Navy, June 7, 1909.

Engineer.—Capt. G. R. LUKESH, Corps of Engineers, U. S. Army, relieved Capt. M. D. CONNOR, Corps of Engineers, U. S. Army, November 1, 1908.

Engineer.—Maj. M. L. WALKER, Corps of Engineers, U. S. Army, relieved Capt. G. R. LUKESH, Corps of Engineers, U. S. Army, December 19, 1908.

REPORT

OF THE

LIGHT-HOUSE BOARD.

DEPARTMENT OF COMMERCE AND LABOR,
OFFICE OF THE LIGHT-HOUSE BOARD,
Washington, November 15, 1909.

SIR: The Light-House Board has the honor to submit the following report for the fiscal year ended June 30, 1909:

At the close of the year there were maintained under the Light-House Establishment 1,580 lighted aids, including 53 light-vessels, and excluding post lights, 7,656 unlighted aids, and 2,333 post lights.

For the care and maintenance of these aids there were employed 3,137 keepers, assistant keepers, and laborers attending lights; 1,693 officers and seamen on board vessels; 318 employees for construction and repair; also 51 light-house tenders.

DISCONTINUANCE OF AIDS TO NAVIGATION.

In compliance with section 7 of the act of May 14, 1908, the Board states that the following-named aid may be discontinued without distinct injury to the interests of navigation:

Fourth district.—Cross Ledge light-station, New Jersey, upon the establishment of Elbow of Cross Ledge light-station, New Jersey.

PRIVATE AIDS TO NAVIGATION.

There are now maintained under the provisions of the act of June 20, 1906, 111 lights, 68 buoys, and 51 other unlighted aids.

The act meets all present requirements, and the Board has no recommendations to make.

NEW LIGHT-HOUSE DISTRICTS.

The Board recommends that the act approved July 26, 1886 (24 Stat., 148), be amended to read as follows:

> The Light-House Board shall arrange the ocean, gulf, lake, and river coasts of the United States into light-house districts, not exceeding nineteen in number.

Under the provisions of this amendment the Light-House Board proposes to create three additional light-house districts, one embracing Porto Rico and the naval station at Guantanamo, Cuba; one embracing the Territory of Hawaii and the Pacific islands under the jurisdiction of the Light-House Board; and the third embracing Alaska.

The island of Porto Rico and adjacent islands and the naval station at Guantanamo, Cuba, have been temporarily attached to the Third district, with headquarters at Tompkinsville, N. Y.; the Territory of Hawaii and the Pacific islands have been placed under the charge of the officers of the Twelfth district, whose headquarters are in San Francisco, and the aids in Alaskan waters are maintained under the direction of the officers of the Thirteenth district, whose headquarters are in Portland, Oreg.

The inconvenience and impracticability of directing from distant points the details of an administration which properly demands constant personal supervision by those in charge are obvious.

The foregoing recommendation is made with the belief that the efficiency of the service will be materially improved, and the Board urgently recommends that the amendment proposed be enacted into a law.

AIDS TO NAVIGATION IN AMERICAN SAMOA.

Under date of May 29, 1909, the Department of Commerce and Labor requested the Navy Department to maintain the aids to navigation in the waters of American Samoa, as heretofore, at an estimated cost of $1,000 per annum.

COMPLEMENT OF KEEPERS OF LIGHT-HOUSES.

By act of March 4, 1909, Congress authorized the employment of 1,700 light-house and fog-signal keepers and laborers attending other lights for the fiscal year 1910, an increase of 50 over the preceding year. On June 30, 1909, 1,643 keepers were employed, being within 7 of the number authorized for that year. During the year ending June 30, 1910, it is estimated that 61 lights will go into commission, requiring the services of 47 keepers, and thus leaving but 10 authorized positions available for such stations as may have to be established during the fiscal year 1911. This number is insufficient when the rapid development of this branch of the public service is taken into consideration, and it is therefore recommended that the authorized number of light-house and fog-signal keepers and laborers attending other lights be increased to 1,750.

LIGHTING OF RIVERS.

Two thousand and seven lights, attended by 1,494 laborers, are maintained from the appropriation "Lighting of rivers," the average annual cost for each light being $186.66.

By the act approved August 5, 1909, the appropriation was made available for maintaining the post lights on the Delaware River between Philadelpha, Pa., and Trenton, N. J.

Recommendation is made that the jurisdiction of the Board be extended to include all rivers of the United States, Alaska, and Hawaii. This action would materially increase the efficiency of this branch of the service by avoiding the delay necessarily incident to procuring the special authority of Congress for the establishment of the small, inexpensive lights demanded by commerce on rivers not specifically mentioned in the act making appropriation for lighting of rivers.

TENDERS AND LIGHT-VESSELS.

TRANSFER OF VESSELS TO THE PACIFIC COAST.

Eight tenders and 7 light-vessels were put into commission during the year, of which number the tenders *Sequoia*, *Manzanita*, and *Kukui*, and light-vessels Columbia River No. 88, Relief No. 92, and Swiftsure Bank No. 93 were built for service on the Pacific coast. The latter vessels, after being fitted for the voyage at the general light-house depot at Tompkinsville, N. Y., sailed for San Francisco, Cal., September 21, 1908, by way of the Straits of Magellan, and arrived at San Francisco without mishap January 23, 1909. After slight repairs at San Francisco the vessels assumed their respective stations.

The following table shows the distance, time of passage, and amount of coal consumed by the tender *Sequoia:*

Port.	Time of passage.			Distance covered.	Coal consumed.
	Days.	*h.*	*m.*	*Miles.*	*Tons.*
New York to San Juan	7	19	10	1,446	88
San Juan to Port Castries	2	7	10	373	21
Port Castries to Pernambuco	13	15	25	2,334	148
Pernambuco to Montevideo	10	10	30	2,045	97
Montevideo to Punta Arenas	7	7	50	1,297	65
Punta Arenas to Valparaiso	10	21	45	1,481	100
Valparaiso to Callao	7	11	52	1,313	71
Callao to San Diego	21	5	50	3,604	235
San Diego to San Francisco	3	9	30	500	27

AMBROSE CHANNEL LIGHT-VESSEL.

In pursuance of the policy to give the marking of Ambrose Channel, New York Harbor, the best and most efficient service, the Light-House Board equipped and placed Ambrose Channel light-vessel No. 87 at the entrance of the lower bay of New York on December 1, 1908. This vessel has the latest type of electrical systems installed for the service of its lighting apparatus, and is a modern full-powered steamer capable of any service. Her outfit is the result of careful thought and a strong desire to make her worthy of the prominent position she occupies in the lighting system of the approaches to New York Harbor. Thus far she has given perfect satisfaction and fulfilled the expectations of the officials of the Light-House Board. It is proposed to increase the intensity of the light at an early date by the installation of a lens similar to that used in light-houses.

LIGHT-VESSELS RECOMMENDED.

Elsewhere in this report the Board submits an estimate for the construction of four first-class seagoing light-vessels, at an estimated cost of $460,000, for service on the Atlantic and Gulf coasts. The efficiency of the service regarding light-vessels will be seriously impaired at an early date unless some action is taken to replace those vessels worn-out by constant service on exposed stations.

Light-vessel No. 45, heretofore marking Winter Quarter Shoal station, off the seacoast of Virginia, was disabled in the gale of January 24, 1908, to such an extent that a survey at the League Island Navy-Yard developed the fact that the vessel was no longer safe on an outside station. The station has since been marked temporarily by relief light-vessel No. 91. Being deprived of the services of this vessel, the Fourth district is again rendered dependent upon the convenience of other districts having relief vessels.

Northeast End light-vessel No. 44 and Overfalls light-vessel No. 69 upon survey having been found not to be in condition to withstand the severe winter gales on the Atlantic coast, were recently withdrawn for repairs requiring several months, and their stations were marked by relief light-vessels borrowed from other districts.

A board of survey on Martins Industry light-vessel No. 29, stationed off the entrance to Port Royal Sound, South Carolina, found that this vessel is in unserviceable condition, having reached a stage of deterioration so advanced and so general that the present value of the vessel is small, and insufficient to justify the large expenditure required to place her in a thoroughly serviceable condition, and recommended that immediate steps be taken to provide a new vessel for this station.

The number of vessels available to mark established stations on the Atlantic and Gulf coasts is now inadequate, and although 10 relief light-vessels are now in commission, but 3 of these are at this time available for the relief of 21 outside stations from Maine to Texas, 3 being employed on duty more or less permanent in character, and 4 being defective in size or not adapted to the installation of modern equipment necessary to make them available for relief service of the character described. In the present situation the number of relief light-vessels is below the limit demanded.

LIGHT-VESSEL FOR GARY HARBOR, INDIANA.

The establishment of a light-vessel is urged by maritime interests at a point about 7 miles northerly of Gary Harbor, Indiana, to protect vessels from the numerous shoals lying to the northwest of the harbor. The tonnage entering Gary is very large and constantly increasing, and the vessels engaged in carrying ore to that port are some of the largest on the Great Lakes. In view of these facts the Board recommends that it be authorized to transfer White Shoal light-vessel No. 56, when that vessel becomes available upon the establishment of White Shoal light-station, to the proposed location off Gary Harbor, Indiana, the vessel to be known as Indiana Shoals light-vessel No. 56.

Upon the establishment of a light-vessel at this point the gas and bell buoys now established will be discontinued.

GALVESTON LIGHT-VESSEL NO. 28.

The establishment of fixed aids to navigation at the entrance to Galveston Bay having rendered the maintenance of Galveston light-vessel No. 28 on her station at the entrance to the bay no longer necessary, the vessel was withdrawn and the station discontinued in 1905, since which time she has been laid up. As the vessel is in fair condition and should last some years if used for marking an unexposed station, the authority of Congress is asked to transfer her to some location, to be determined later, where in the opinion of the Board the services of such a vessel are required.

SALVAGE SERVICES OF TENDERS.

Tenders are frequently called upon to aid vessels in distress, thereby aiding to secure life and property. In this connection the services of the tender *Larkspur* of this character during the past year may be referred to.

On February 26, 1909, this tender aided the revenue cutter *Mohawk* off the rocks in Hell Gate; on May 6 she pulled the schooner *J. B. Martin*, of Charlottetown, Prince Edward Island, off the beach near Prudence Island, Narragansett Bay; on May 11, when returning from patrol, she picked up the barge *Helen*, drifting to sea, and towed her to the city dock, Staten Island, where she was safely moored; and on May 27 the tender was sent by request to the assistance of the steamer *Prinzess Alice*, of the North German Lloyd Line, ashore near Fort Wadsworth, Staten Island.

CONDEMNATION AND SALE OF TENDERS AND LIGHT-VESSELS.

The sailing tender *Pharos*, condemned in the latter part of the fiscal year 1908, was sold August 18, 1908, for $3,601; the tender *Laurel* was sold January 19, 1909, for $1,050; the tender *Dahlia* was sold February 17, 1909, for $5,400; light-vessel No. 7 was sold May 28, 1909, for $155; and the tender *Cactus* was condemned after survey. The last-named tender was placed out of commission January 31, 1909, and probably will be sold early in the coming fiscal year.

COLLISIONS.

On September 16, 1908, while moored at the Union Wharf, Charleston, S. C., the steamer *Matilda Weems*, of the Baltimore and Carolina Steamship Company, in making her wharf, collided with the tender *Cypress*, inflicting some extensive damage. The tender was hauled out and repaired at Jacksonville, Fla., at the expense of the steamship company.

On September 26, 1908, Poe Reef light-vessel No. 62 was damaged in a collision with the steamer *Wolf*. The damage was repaired by the owners of the steamer.

On December 5, 1908, Limekiln Crossing light-vessel No. 64 was in collision with the lighter *Rescue*. The cost of repairs was paid by the owners of the vessel responsible for the damage.

On June 7, 1909, the tender *Violet*, while lying at the Portsmouth light-house depot, was rammed by the naval collier *Brutus*. The damage was repaired at the Norfolk Navy-Yard.

On June 17, 1909, Heald Bank light-vessel No. 81 was run into and seriously damaged by the Norwegian steamship *Texas* when moored at the wharf at Port Eads light-house depot, Louisiana. The damage was repaired at the expense of the owners of the offending steamer.

TENDERS AND LIGHT-VESSELS UNDER CONSTRUCTION.

Martin Reef light-vessel No. 89.—This vessel was delivered to the inspector of the Eleventh light-house district in October, 1908, and on the opening of navigation, 1909, was placed on her station five-eighths of a mile southerly from the southeasterly end of Martin Reef, Lake Huron.

Tender Camellia.—Plans have been practically completed for the light-draft tender *Camellia*, intended for use in the shallow waters of Lake Ponchartrain and Lake Borgne, in the Eighth light-house district. The *Camellia* measures 116 feet 7 inches over all, with a water-line length of 106 feet 2 inches, a beam of 24 feet, and a draft of 5 feet when loaded with 15 tons of cargo, and a displacement of 229 tons at this draft.

The quarters for the officers are on the main deck, upon which are also located the officers' mess room, galley, storerooms, and the various bathrooms, while on the upper deck forward are the master's quarters, chart room, pilot house, etc. The inspector's quarters, consisting of a saloon and one stateroom, are located on the after part of the upper deck. The vessel will be fitted throughout with all modern appliances, including steam windlass, sanitary plumbing and fixtures, and drainage system. The buoy deck is 32 feet long, and a hoisting engine capable of lifting 5 tons is fitted thereon for lifting buoys.

The propelling machinery consists of two triple-expansion, inverted, direct-acting engines, having cylinders 8, 13, and 21 inches in diameter by 21 inches stroke, driving cast-iron propellers 4 feet 10 inches in diameter by 6 feet 9 inches pitch, and supplied with steam under a pressure of 200 pounds by two water-tube boilers of the Almy type, each having 30 square feet of grate surface and 950 square feet of heating surface.

The outfit includes a 21-foot power boat and a 21-foot cargo boat.

Knuckle of Frying Pan Shoal light-vessel No. 94.—This vessel, now under construction at Muskegon, Mich., is being built from the Board's standard design for first-class light-vessels. She will be fitted with two spars, one of which will be of steel and surmounted by a lantern in which will be fitted a fourth-order lens hanging on gimbals and arranged to revolve, giving a characteristic flash during each revolution. The focal plane of the light will be 68 feet above the water. The vessel is propelled by an inverted, direct-acting, fore-and-aft compound engine having cylinders 16 and 31 inches in diameter by 24 inches stroke, driving a cast-steel propeller 7 feet 9 inches in diameter. Steam is supplied at a pressure of 110 pounds per square inch by two Scotch boilers 10 feet 6 inches in diameter by 11 feet long. The vessel is fitted throughout with modern appliances, and has such weatherly capabilities that she can keep the sea under any conditions.

Milwaukee light-vessel No. 95.—Plans are now under way for this second-class, steel, steam light-vessel, and will be completed before December 1, 1909. The plans call for a vessel of 330 tons displacement, having a length of 89 feet 8½ inches on the water line, 108 feet 5 inches over all, with a beam of 23 feet and a draft of 10 feet 2½ inches when loaded with 50 tons of coal and supplies for a period of six months. The vessel is to be fitted with two spars, one of which is to be a steel mast surmounted by a lantern in which will be fitted a fourth-order lens with a focal plane 40 feet above the surface of the water.

The propelling machinery consists of a single-cylinder, high-pressure, inverted, direct-acting marine engine of 250 horsepower supplied with steam by two Scotch boilers 8 feet 6 inches in diameter by 10 feet long. The vessel will be fitted with all modern appliances, and will have such weatherly qualities that she can remain on her station at all times.

Tender for the inspector of the First light-house district.—Plans are now under way for this tender, intended to replace the tender *Geranium*, which is old, out of date, and inefficient. The design calls for a vessel having a water-line length of 163 feet 6 inches and an over-all length of 179 feet, a beam of 32 feet, and a draft of 10 feet when loaded with 75 tons of cargo, the total displacement at this draft being 870 tons.

Quarters for the officers are located on the main deck, which is inclosed on the sides for a length of 80 feet amidships, within which are also located the officers' mess room, galley, storerooms, and the various bathrooms. On the upper deck are the pilot house, master's quarters, and inspector's quarters, the latter consisting of a saloon, two staterooms, bath, pantry, etc. The tender is fitted throughout with all modern appliances, including steam windlass at the foremast capable of handling a load of 10 tons. All other appliances, such as sanitary plumbing and fixtures, drainage system, electric lights, and pneumatic machinery, will be supplied. The buoy deck is 38 feet long.

The propelling machinery consists of two triple-expansion, inverted, direct-acting engines, having cylinders 12, 19, and 32 inches in diameter by 24 inches stroke, driving manganese bronze propellers 7 feet 6 inches in diameter by 10 feet 9 inches pitch, and supplied with steam under a pressure of 190 pounds by two Scotch boilers having 45 feet of grate surface and 1,500 square feet of heating surface in each boiler.

The outfit will include a 26-foot power boat, a 25-foot cargo boat, and a 16-foot dingey, and all of the necessary gear for handling buoys and their appurtenances.

The tender is intended to attain a maximum speed of 10½ knots and will carry 125 tons of coal, giving a steaming radius of 1,500 knots.

Tender for the inspector of the Fifteenth light-house district.—Plans are now under way for this tender, which is intended for use in the shallow waters of the Mississippi and Illinois rivers, and covers a design of a side-wheel steamer 150 feet long, 26 feet beam, and drawing 30 inches of water when loaded with coal, stores, and 5 tons of cargo. The propelling machinery consists of two independent oscillating compound marine engines, each driving its own wheel, and supplied with steam by two water-tube boilers at a pressure of 150 pounds per square inch, and is of the surface condensing type, and all appliances incident thereto are to be installed. The quarters for the officers and for the inspector are on the upper deck, and those for the crew on the main deck aft of the machinery. The tender will be fitted with steam steering gear, electric lights, and all necessary gear for driving stakes and handling buoys and aids to navigation used in the river service.

Relief light-vessel for the Ninth and Eleventh light-house districts.—It is intended to use the plans for Martin Reef light-vessel No. 89, completed in October, 1908, for the construction of this vessel, provided the performance of the vessel during the present season proves satisfactory. A description of light-vessel No. 89 will be found on page 60 of the Annual Report of the Light-House Board for 1908, and this description applies to relief light-vessel No. 82.

Tender for the engineer of the Sixth light-house district.—Drawings are being prepared for this tender, for which an appropriation of $30,000 was made by the act approved May 27, 1908. The tender is to be used by the engineer of the Sixth light-house district and elsewhere as may be directed. It will be constructed throughout of wood, and will have an over-all length of 84 feet, a water-line length of 78 feet 6 inches, a beam of 18 feet, and a draft of 4 feet 6 inches.

The tender will be arranged with a small pilot house on the main deck, about 24 feet from the stem, aft of which will be located the quarters for the district engineer and master. A deck house about 3 feet high will extend from the pilot house to within 8 feet of the stern, and will be of practically the same width as the hull. In this deck house will be located the district engineer's dining room, the ice box, engine room, and quarters for the crew, laborers, etc. A cargo hold is arranged under the forward deck and a boom derrick and short spar are provided for handling the cargo.

The propelling machinery will consist of two 50-horsepower 4-cylinder gasoline motors, giving a maximum speed of 10 miles an hour.

The tender will be fitted with all modern appliances, including electric lights, sanitary plumbing, etc.

Tender for the engineer of the Third light-house district.—Drawings and specifications for this tender, to be named the *Woodbine*, for which an appropriation of $25,000 was made by the act approved March 4, 1907, have been practically completed. The *Woodbine* is intended for the use of the engineer of the Third light-house district in the work of construction and repair of light-houses on Lake Champlain. The tender has an over-all length of 95 feet 1 inch, a water-line length of 85 feet 11 inches, a beam of 16 feet, and a draft of 4 feet 5 inches, with a displacement of 62.25 tons at this draft.

The tender has one main deck, upon which is erected the pilot house and quarters for the officers forward of the smokestack, while a trunk cabin extends from the after end of the deck house to the after end of the engine room, where it is widened out to the entire width of the hull, and for a length of 18 feet incloses the quarters for the district engineer; these quarters consist of the saloon, two transom berths, and one stateroom with two berths, and a bathroom. The galley and the crew's space is in the forward hold, just forward of the boiler and beneath the officer's quarters. A cargo hold is provided forward of the crew's quarters, and a cargo davit is fitted in the eyes of the tender to handle the cargo into and out of the hold.

The propelling machinery consists of one triple-expansion, inverted, direct-acting engine with cylinders 8, 13, and 21 inches in diameter, with a common stroke of 16 inches, and supplied with steam at 200 pounds pressure by one water-tube boiler.

The tender will be fitted out with all modern appliances, including electric lights, sanitary plumbing, etc.

WORKS OF CONSTRUCTION COMPLETED.

The more important works of construction completed during the year were as follows:

Cabras Island, Porto Rico.—The light at this station, located on the easterly end of Cabras Island, entrance to Ensenada Harbor, was established November 16, 1908. The light-house is a square two-story gray stone structure with white trimmings, with a small cylindrical tower on the offshore corner supporting a black lantern. The light is of the sixth order, fixed white, illuminating the entire horizon, and visible 14½ miles.

General light-house depot, Tompkinsville, N. Y.—The construction of the new lamp shop was completed and part of the machinery installed.

Harbor of Refuge light-station, Delaware.—On November 20, 1908, a fourth-order, incandescent oil-vapor light, illuminating the entire horizon, and flashing white every 12 seconds, was established in the white, hexagonal, three-story frame structure, with lead-colored trimmings, resting on a brown cylindrical iron foundation, located on the southerly end of the Harbor of Refuge Breakwater, southwesterly side of the entrance to Delaware Bay. The foundation of this light-house, completed in 1907, consists of a concrete block 40 feet in diameter and 15 feet 6 inches high, resting upon the enrockment of the breakwater. The superstructure consists of a center column of iron, a basement 32 feet in diameter of two courses of iron plates, and an hexagonal frame superstructure from the basement to the lantern. The fog-signal is a first-class siren operated by compressed air.

Listons range front light, Delaware.—This light, located about 4⅝ miles northwesterly from Listons Point, was moved 78 feet northwesterly along its range line, and established in the white two-story frame structure, surmounted by a watch room and lantern, completed in November, 1908. The illuminating apparatus is a locomotive headlight reflector, showing an occulting light. The light was shown from the new structure for the first time December 28, 1908.

Bellevue range, Delaware.—These lights in range guide in the channel from Cherry Island Flats range line to the Schooner Ledge range line, and were established as follows: Front light—A fixed white reflector light during periods of 2 seconds, separated by eclipses of 1 second's duration, shown from a small white one-story structure having a square tower rising from its center surmounted by a lantern. The illuminating apparatus is a locomotive headlight reflector. Rear light—This light is located just north of the jetty, on the northerly side of the mouth of Christiana River, and about 1⅛ miles southwesterly in rear of the front light. The light, which is of the fourth order, is shown from a square, pyramidal, skeleton iron tower with a central stair cylinder, surmounted by a watch room and a round lantern. The lights were first shown March 15, 1909.

Schooner Ledge range, Pennsylvania.—These lights were each moved 250 feet SSE. ⅜ E. from their former positions. The skeleton iron tower, about 100 feet high, from which the rear light is exhibited, was moved intact to the new concrete foundation. The new wooden tower, from which the front light is exhibited, in progress of erection at the end of last year, was completed.

Baltimore, Md.—This light, in 23 feet of water, is located to the westward of the southerly entrance to Craighill Channel, Baltimore Harbor. The structure is a brown cylindrical foundation pier, expanding in trumpet shape to form a gallery, surmounted by a white octagonal two-story brick dwelling, with mansard roof and a black lantern. The lower part of the structure consists of a square wooden caisson 48 feet wide at the bottom, 46 feet on top, and 21 feet high, provided with a working chamber and air and dredging shafts. On the roof of this caisson a cylindrical cast-iron shell rests, having a diameter of 45 feet for the five lower courses, each 6 feet 3 inches in height; then conical for the next four sections, 6 feet each in height, and with the top section trumpet shaped, the total height of the shell being 82 feet 3 inches, and of the whole foundation pier 103 feet 3 inches. After sinking to the proper level below the bottom of the bay the working chamber and parts of the shafts were filled with concrete, and the entire shell with concrete and large stones except the spaces for cisterns and cellar. The illuminating apparatus is a fourth-order lens showing a flashing white light every 10 seconds, and was shown initially October 1, 1908.

Pungoteague Creek, Maryland.—This structure, on the shoal on the west side of the entrance to Pungoteague Creek, east side of Chesapeake Bay, was completed in September, 1908. The light is shown 20 feet above the water, from an iron cylindrical foundation pier surrounded by riprap and surmounted by a cylindrical service box.

La Trappe Creek, Maryland.—The two structures for these lights, located at the entrance to La Trappe Creek, northerly side of Choptank River, are built on plans similar to that for Pungoteague Creek light, and were finished in October, 1908.

Fort San Jacinto depot, Texas.—By the act of May 27, 1908, Congress made an appropriation of $10,000 for the construction of an open shed and wharf on the military reservation at Fort San Jacinto, Galveston Bay. The wharf as constructed is 190 feet long and 40 feet wide, with fender piles, guard slips, etc. The foundation piles are protected by terra-cotta sleeves filled with cement; the fender piles are creosoted timber. An open shed about 30 by 60 feet in plan was constructed on the wharf for the storage of buoys, appendages, and supplies.

Holland pierhead range front, Michigan.—A small steel tower was erected on the outer end of the south pier at the entrance to Black Lake, Holland Harbor, Michigan, and the light installed thereon October 5, 1908. The illuminant is acetylene.

Grande Pointe au Sable, Michigan.—A brick fog-signal house was completed at this station, located on Grande Pointe au Sable, on the easterly side of Lake Michigan. The fog-signal equipment, consisting of two 22-horsepower kerosene oil engines with compressors and air tanks, and a first-class automatic compressed-air siren, was installed ready for service May 20, 1909.

Chicago pierhead range, Illinois.—These lights are located on the easterly end of the north pier at the entrance to Chicago River and the northerly part of Chicago Harbor. The front light is shown from a small steel tower of oval cross section and the rear light from a cylindrical metal tower. The lights were shown for the first time October 15, 1908.

West Neebish Channel, St. Marys River, Michigan.—The act approved February 15, 1908, appropriated $26,400 for lighting Neebish Channel, St. Marys River, Michigan. At the close of the last fiscal year 14 cast-iron lantern posts and 7 steel lamp houses were constructed and delivered at the light-house depot at Detroit, Mich., under formal contract, the delivery of the posts being completed on August 23 and of the lamp houses on September 3, 1908. All the work in connection with the establishment of the 28 aids to navigation for lighting this channel, consisting of 26 post and lens-lantern lights and 2 gas buoys, was finished in the latter part of September, the lights being shown for the first time on the night of September 15, 1908. This channel is divided into five sections, numbered consecutively from the entrance in Hay Lake to the exit into Mud Lake, and is used by down-bound vessels only. With the exception of the two gas buoys, all of the lights are displayed from cast-iron fluted lampposts, with ornamental bracket arm, at a height of 29 feet above the water, with a small steel rectangular lamp house, with pyramidal roof at the base, placed upon a square concrete block. The foundations were constructed from funds appropriated for the creation of the channel under the direction of the War Department. In order to make the foundations reasonably safe from ice action, fifteen of the number were protected by riprap. Owing to the action of the ice during the winter repairs were made to lights Nos. 2, 5, 6, 7, 9, 10, 12, 15, 16, 17, 18, 24, and 25.

Munising, Mich.—The act approved March 4, 1907, appropriated $15,000 for the establishment of range lights at Grand Island Harbor, Munising, Mich. The construction of the station was in progress at the close of last fiscal year, at which time the title papers to the site of the rear light were being prepared, the construction of the metal work for the shell towers was in progress, and the erection of the keeper's dwelling was also under way. During the present fiscal year title to the two sites was obtained, and all work in connection with the construction of the station was completed. The lights of the range constitute a guide for the easterly channel to the anchorage of Grand Island Harbor, and are located in the town of Munising, at the head of South Bay. They were shown initially on the night of October 30, 1908.

Gull Island, Apostle Group, Lake Superior.—The act approved May 27, 1908, appropriated the sum of $2,000 for making the survey and estimate called for in the act approved May 14, 1908. This survey, which was in progress at the close of the last fiscal year, was completed in the month of September, 1908.

Duluth, Minn.—The act approved March 4, 1907, appropriated the sum of $200 for the purchase of land adjoining the range-light station required for the erection of an oil house and outbuildings. The land was purchased in March, 1909.

Point Arena, California.—A first-order light, showing a white double flash every 6 seconds, was established in the new tower erected at this station on September 15, 1908. A shop and barn were completed.

Point Cabrillo, California.—This station, on Point Cabrillo, consisting of a light and fog-signal building, three keeper's dwellings, barn, pump house, water-supply system, carpenter and blacksmith shops, was completed on June 10, 1909, at a cost of $50,000. The light is of the third order, flashing white every 10 seconds, 84 feet above the water, and should be visible 14¾ miles in clear weather. The fog signal is a 6-inch compressed-air siren.

Nakalele Head, Maui, T. H.—A fixed white lens-lantern light was established at this station, located on Nakalele Point, westerly part of the island of Maui, on November 1, 1908.

Cape Arago, Oregon.—A new fog-signal building, with tower attached, and a new bridge leading from the mainland to the island upon which the station is located, were constructed during the year. The fog-signal plant, consisting of two 18-horsepower oil engines and air compressors to operate an automatic siren, and a fourth-order oil vapor lamp, were installed.

Ediz Hook, Washington.—A new fog-signal building, with tower attached, was constructed, and a fog-signal plant, consisting of two 18-horsepower oil engines and air compressors to operate a first-class automatic siren, was installed.

UNCOMPLETED WORKS OF CONSTRUCTION AND PROGRESS THEREON.

Staten Island, New York (*Staten Island and West Bank, New York*).—Authorized by the act of June 20, 1906, at a cost of $100,000; appropriations, act of June 30, 1906, $50,000; act of March 4, 1909, $50,000.

This light, in range with West Bank light, will form a guide for the new Ambrose Channel at the entrance to New York Harbor. A bid for the construction of the station has been accepted and the contract prepared. The station should be ready for operation about December 31, 1909.

Craven Shoal beacon, New York.—Appropriation, act of June 30, 1906, $20,000.

Soundings and borings were made at the proposed site, but work was suspended by order of the Light-House Board on the protests of commercial interests.

Southwest Ledge, Connecticut.—Authorized by the acts of June 20, 1906, and March 4, 1907, at a cost of $115,000; appropriations, act of April 4, 1904, $60,000; act of March 4, 1909, $60,000. The act approved March 4, 1907, authorized the Board to enter into a contract for completing Southwest Ledge light station. Connecticut, at a total cost not to exceed $115,000, including the sum of $60,000 made available by the act approved June 20, 1906, appropriated by the act approved April 28, 1904, for a light and fog signal at Black Ledge, New London Harbor, Connecticut.

The station will be ready to commission about November 10, 1909.

Lloyd Harbor, New York.—Appropriation, act of March 4, 1907, $40,000.

Detailed plans and specifications are before the Board for approval. The light will be established about December 31, 1909.

Passaic, N. J.—Authorized by the act of February 26, 1907, at a cost of $15,000; appropriation, act of March 4, 1907, $15,000.

This light and fog-signal station is to be located at or near the west end of the draw of the Lehigh Valley Railroad bridge at Passaic, N. J. Preliminary plans and specifications for the station have been made. The structure should be completed about December 31, 1909.

Staten Island light-house depot, New York (*spar shed*).—Authorized by the act of May 14, 1908, at a cost not to exceed $3,000; appropriation, act of May 27, 1908, $3,000.

Preliminary plans and specifications for this work are in preparation.

San Juan light-house depot, Porto Rico.—Appropriation, act of May 27, 1908, $15,000.

Plans and specifications for a storehouse are before the Board. Work has been suspended pending the transfer of a site by the government of Porto Rico.

Negro Point, New York.—Authorized by act of May 14, 1908, at a cost not to exceed $10,000; appropriation, act of May 27, 1908, $10,000.

This station is to be located at or near Negro Point, on Wards Island, Hell Gate, East River, New York. The title to the site is being obtained, and plans are in course of preparation.

Miah Maul Shoal, New Jersey.—Authorized by act of June 20, 1906, at a cost not to exceed $75,000; appropriations, act of June 30, 1906, $40,000; act of March 4, 1907, $35,000.

The work of constructing a pile foundation, working platform, and depositing riprap was completed in January, 1909.

The pile foundation consists of 187 14 to 16 inch white-oak piles driven 3 feet on centers and about 18 feet into the sandy bottom. Their heads are in a horizontal plane (within one-half inch) ready for receiving the grillage of the foundation shell. The grillage and the tops of the piles are to be protected by concrete deposited around the edge of the grillage and inside of a steel form 6 feet high by 44 feet in diameter. The working platform is about 18 feet wide, extending half way around the foundation, and is to be used by the contractor in erecting the foundation shell. A layer of riprap 4 feet deep was deposited around the foundation to a radius of 80 feet to prevent the shifting of the shoal.

The cast iron of the foundation shell was delivered by contract at the Christiana light-station in July, 1908. This shell is 40 feet in diameter at the bottom, sloping to 30 feet in diameter at a height of 30 feet. It has a bell-shaped top course 40 feet in diameter, with a cornice, and is 42 feet 8 inches high. This shell is to rest on a 24-inch course of 12 by 12 inch cross timbers bolted together water-tight, and finally placed in position and filled with concrete. The grillage and three courses of the foundation shell were erected on launch ways at the Christiana light-station in October and November, 1908. The original contractor stopped operations in December, being financially unable to continue the work. In June, 1909, under a new contract, the work of launching and partly filling the shell at the site was continued.

The superstructure is to be in the form of a frustrum of a cone, three stories high, surmounted by a watch room and fourth-order helical-bar lantern, and surrounded at the base by a veranda. It will be of cast iron and brick lined.

Elbow of Cross Ledge, New Jersey.—Limit of cost increased by the act of May 14, 1908, to $96,500; appropriations, act of April 28, 1904, $75,000; act of May 27, 1908, $21,500.

The foundation caisson was completed in January, 1908, under two separate contracts, at a total cost of $65,273.38. The superstructure is octagonal in form, and the first two stories are of brick surmounted by a cast-iron watch room. The watch room supports a cylindrical fourth-order helical-bar lantern of cast iron. The veranda deck is covered by a roof supported by iron columns. All the metal work for the superstructure was delivered at Wilmington in February and March, 1909. A contract for the erection of the superstructure in the sum of $12,000 was awarded in June, 1909, and the papers are in course of final execution. The contract date for completion is December, 1909.

Goose Island Flats, Delaware.—Appropriation, act of May 27, 1908, $15,000.

Plans and specifications for a pile-foundation structure were approved, and a contract in the sum of $11,250 for furnishing the metal work and erecting the same has been awarded, and the work of erection was begun in June, 1909. The structure is to be composed of three reenforced concrete piles 2 feet in diameter and about 66 feet long. These piles are to be 5 feet on centers, sunk about 21 feet into the bottom of the river, braced together and capped with a sheet-iron plate for a deck. They are to be strengthened by a conical pile of riprap around their base extending to within 4 feet of mean low water. The structure is to be lighted with gas stored in tanks. It is expected that the light will be established about October, 1909.

Reedy Island range rear, Delaware.—Appropriations, act of March 3, 1901, $60,000; act of June 28, 1902, $30,000; act of May 27, 1908, $25,000 (Delaware River Range Lights).

The plans and specifications for the tower have been approved and bids for doing the work received. Contracts were awarded in June, 1909, and the papers are in course of final execution. The tower is to be a cast-iron and steel structure with watch room and lantern accessible from below by a spiral stairway inclosed in a cast-iron cylinder. It is to rest on nine concrete foundation piers. The total height of the tower is about 125 feet.

Cape May, N. J.—The work of removing the old dwelling was begun about the 1st of June. The greater part of the material for the new structure has been ordered and part of it delivered.

Ragged Point, Potomac River, Maryland.—Appropriations, act of June 30, 1906, $15,000; act of March 4, 1907, $15,000; act of May 27, 1908, $5,000.

Plans and specifications for the metal work and for the erection of the structure were prepared and submitted to bidders, and the contracts were awarded to lowest bidders. The metal work has been completed and delivered at the light-house depot at Lazaretto Point, Maryland, and the contractor for the erection of the light-house at the site has commenced the framing of the structure at Baltimore. The first story has been set up and is now ready to be taken down and the parts assembled for transportation to the site. The station should be completed January 1, 1910.

Lower Broad Creek, Neuse River, North Carolina.—Appropriation, act of May 27, 1908, $500.

The design for a beacon structure has been decided upon, and arrangements will shortly be made for its erection. The station will be completed about September 1, 1909.

Washington, D. C., light-house depot.—Appropriation, act of March 4, 1907, $30,000.

The building of a wooden wharf, 176 feet long and 24 feet wide, with a pierhead 48 feet by 86 feet, was commenced in January and finished in May, 1909. Designs have been completed for a storehouse and its foundation, and construction of the latter is about to begin.

South Island, Winyah Bay, South Carolina.—The proposed site for the keeper's dwelling was surveyed and marked. Further action is delayed pending the determination of the sufficiency of title conveyed.

Galveston Jetty, Texas.—Appropriations, act of June 11, 1896, $35,000; act of May 27, 1908, $10,000.

The contract for the metal work is about seven-eighths completed, and shipment to Galveston should soon be made by the contractor.

White Shoal, Lake Michigan.—Authorized by act of February 26, 1907, at a cost not to exceed $250,000; appropriation, act of March 4, 1907, $250,000.

The crib and concrete pier superstructure have been completed in accordance with contract. Detailed plans and specifications for the structural steel, cast-iron work, aluminum lantern, and lantern deck have been completed and approved and contracts have been entered into for furnishing these materials. The steel work has been delivered at the site and the first and second floor work erected and temporarily bolted together. The cast-iron work is ready for inspection and will be delivered soon. The aluminum lantern and lantern deck are under construction, and the terra cotta has been delivered at the light-house depot at Milwaukee. The brick, a portion of the cement, and crushed stone and sand for the tower work, doors and windows, and steam-heating plant have been ordered. The oil engines and compressors have been delivered. The steam barge *Two Myrtles* was purchased, at a cost of $5,700, to assist the work. The lens and illuminating apparatus have been ordered and are nearly ready to be forwarded from the general depot.

Charlevoix pierhead, Michigan.—Materials were procured for the installation of an automatic electrically operated fog-bell striking machine. The power house will be completed and all machinery installed in the near future. Materials for the construction of an oil house have been purchased and delivered.

Ludington south breakwater, Michigan.—A reenforced concrete column has been erected on the outer end of the south breakwater for the exhibition of an acetylene light. The lighting equipment will be installed in the near future.

Bank Point, Muskegon Lake, Michigan.—The work of constructing a reenforced concrete column supported by a concrete caisson on a pile foundation, for the exhibition of an acetylene light, will be completed at an early date.

Saugatuck Harbor north entrance, Michigan.—A concrete foundation and reenforced column for exhibiting an acetylene light have been completed. The tanks and other equipment will be installed at an early date.

Cleveland Harbor breakwater, Ohio.—Appropriation by act of May 27, 1908, $45,000.

Plans and specifications for a light-house and an iron beacon were prepared, and bids for the work of construction were opened March 30, 1909. The bids, being considered excessive, were rejected and the work was readvertised. Bids were again opened May 28, 1909, and the contract was awarded to the lowest bidder in the sum of $39,397.

Big Sable, Michigan.—A keeper's dwelling is being constructed at this station under an allotment of $5,500 from the appropriation made by the act of May 27, 1908.

Plans and specifications for an additional dwelling were prepared, and proposals for furnishing the material and labor, combined and separately, required for construction were invited, and the bids for furnishing the material being found to be the most advantageous were accepted. The work of constructing the building was in progress at the close of the year, the excavating for the foundation being completed, the concrete footings laid, the walls of the structure carried to the first-floor joists and plastered with cement, a tile drain laid around the entire foundation walls, and the walls of the cistern built.

Duluth Harbor north pier, Minnesota.—Appropriation, act of March 4, 1909, $4,000.

The necessary steps to establish this light were being taken when the year closed. Plans and specifications for a suitable iron beacon complete with lantern were prepared, and the lowest bid received for furnishing and delivering the metal work was accepted. The construction of the metal work is in progress.

Split Rock, Lake Superior.—Authorized by the act of February 26, 1907, at a cost not to exceed $75,000; appropriation, act of March 4, 1907, $75,000.

Title to the site desired was acquired through the regular channels, although proceedings had been instituted for the condemnation of the land. These proceedings were abandoned when it was ascertained that title could be obtained otherwise. Detailed plans and specifications for the various structures were prepared, and upon approval proposals were invited for furnishing the material and labor for their construction. Contracts were entered into for furnishing the structural steel and metal work required in the erection of the tower and for providing the balance of the material and all of the labor required for the complete construction of the station. The construction of the metal work is well under way, and work on the general contract for the erection of the various buildings has been commenced.

Rock of Ages, Lake Superior, Michigan.—Authorized by the act of June 20, 1906, at a cost not to exceed $10,000; appropriations, act of June 30, 1906, $50,000; act of March 4, 1907, $50,000. The act of March 4, 1909, appropriated $15,000 for the purchase and installation of a modern lens.

The construction of this station was begun on May 28, 1907, and at the close of that fiscal year the shore depot was constructed, the landing wharf was built, the rock blasting completed, and the dressing of the rock for the base of the foundation cylinder in progress. During the fiscal year ending June 30, 1908, the steel foundation pier was erected and filled with concrete, the entire framework of the tower was erected, and the brick and concrete masonry, including the porous tile lining of the cellar and subcellar, completed to include the corbel course. From June 30 until the close of the working season of 1908, November 4, work was continued, and at that date all the brickwork and concrete masonry of the tower was completed, the main deck, service room, and lantern deck and lantern were erected, the lantern was glazed, and all interior work in the lantern and service rooms was completed. The interior trim was finished and the plumbing and heating systems installed. The station was placed in commission October 22, 1908, a fixed red light of the third order being shown, and a first-class 6-inch siren, operated by compressed air, sounded on that date. Requisition for the permanent lens to be shown at this station was made, and its procurement is now in the hands of the engineer of the Third light-house district.

Carquinez Strait, California.—Authorized by the act of February 26, 1907, at a cost not to exceed $50,000; appropriation, act of March 4, 1907, $50,000.

During the year the contractor commenced work on the landing and approach, the station substructure on piles, and on the superstructure, the latter consisting of a light and fog-signal building, boathouse, and three sets of keepers' quarters. At the close of the year he had practically completed the station substructure and the landing and approach. The superstructure is about 65 per cent completed. As soon as the contract is completed, which will probably be in July of the coming year, the fourth-order lens, lantern, fog-signal machinery, and 6-inch standard sirens, which are all on hand, will be installed, and the station should be ready for operation about October 1, 1909.

Makapau Point, Oahu, T. H.—Authorized by the act of June 20, 1906, at a cost not to exceed $60,000; appropriation, act of June 30, 1906, $60,000.

This station is practically completed, and the light will be exhibited as soon as the illuminating apparatus is installed, which should be early in the coming fiscal year. The light, which is of the hyperradiant order (two orders higher than a first-order light) and 420 feet above mean high water, is located on the southeasterly extremity of the island of Oahu, and should be visible 32 miles in clear weather. The tower is of concrete and in the form of a frustrum of a cone, 20 feet in diameter at the base and 18 feet 6 inches at the top. This tower supports a cast-iron lantern of twenty-four sides, the glazed portion of which is 16 feet inscribed diameter, 12 feet high. The focal plane of the lantern is 25 feet above the surface of the ground and 420 feet above the water. Installed in the lens is a three-mantle incandescent oil-vapor lamp, each mantle 55 millimeters in diameter, inclosed in an occulting mechanism consisting of three spherical copper screens revolving on 1-inch balls, driven by a fourth-order clock, and arranged and speeded to give a characteristic of 7½ seconds of fixed white light and 1½ seconds of eclipse. The interior arrangement of the tower consists of but two stories, the lower story being the service room, connected by a flight of cast-iron stairs, inclosed in an air lock, with the watch room above. The pedestal of the lens is supported by the floor of the watch room, and upon the pedestal plate is located the oil and air tanks and the air pump of the lamp, the oil being forced to the lamp above through a copper pipe. The light will serve as a guide to vessels bound to Honolulu.

Molokai, T. H.—The act approved March 4, 1907, appropriated $60,000 for the establishment of a light and fog signal on the north shore of Molokai Island, T. H. The site selected is on the elevation known as Kalawao, in the peninsula of Makanalua, making out from the north shore of the island, and an area of 21.6 acres was reserved thereon for the station by executive order dated October 27, 1908. Plans were prepared for a reenforced concrete tower with focal plane 213 feet above mean high water, and for three dwellings and an oil house, also in concrete.

It was decided in September, 1907, by the Board to use at this station the lantern and lens ordered for Makapuu Point light-station, on the easterly end of Oahu Island. The plans for the tower were therefore prepared to include the first-order cylindrical helical-bar lantern for which a contract had been made in September, 1907. The lantern was completed and shipped in March, 1908. The lens consists of a second-order 180-degree two-panel lens, arranged to show the characteristic "flashing white every 20 seconds," mounted upon a mercury float and driven by the usual clockwork and falling weight. The lens was delivered in New York in July and was shipped to Honolulu in November, 1908.

The tower is octagonal in plan, 20 feet inscribed diameter at the base and 14 feet 4 inches at the top. It rests upon an octagonal reenforced concrete base 34 feet inscribed diameter and 5 feet 6 inches thick, and is provided at the top with a molded concrete cornice, supporting the lantern described above. The stairs up to and including the fourth landing are also of concrete, and from this landing to the lantern floor they are of cast iron. The watch-room floor supporting the lens pedestal is also of cast iron, with steel I-beams below, and from this floor to the third floor below extends a hollow weight shaft for the clock. The air lock is in the main stairs just below the service room or fourth floor. The focal plane of the light is 120 feet above the base of the tower and 213 feet above the water, as stated above. The illuminant is incandescent oil vapor in a 55-millimeter Welsbach mantel, and the geographical range of the light is 21 miles.

The three dwellings are alike, one and a half stories high, made of concrete, with two bedrooms, living room, dining room, bathroom, storeroom, and kitchen on the main floor and an attic above. A wide veranda runs around the front, one side, and part of the rear of each house, and is covered with a roof supported on nine concrete columns. The roofs of the houses are of frame, covered with corrugated-iron sheathing.

Preparations for commencing the work at the site were begun in March, 1908. The working party arrived at the reservation in June and erected their camp, made the road connecting the station with Kalaupapa, provided a water supply, and made borings for testing the soil on the site of the tower. The concrete work on this structure was commenced in September, 1908, and was completed in March, 1909. The ironwork composing the upper floors, stairs, and lantern was erected in April, and the illuminating apparatus was in place early in June. At the end of the fiscal year the station was nearing completion, work on the last dwelling, No. 3, remaining to be started. The station will go into commission early in the next fiscal year.

Honolulu front, T. H.—The act approved June 30, 1906, appropriated $40,000 for the establishment of a light-station and range lights at Honolulu Harbor, T. H. The site selected for the front range light is on the reef lying on the west side of the inner end of the channel leading into the harbor, and just at the turn. It has since been filled in, but originally it consisted of a submarine site covered by 4 to 6 feet of water at mean high tide, and from 12 to 16 feet of mud, sand, and broken coral, overlying a reef of coral rock. The site originally selected for the rear range light is at the intersection of Fort street and the Esplanade, but was subsequently abandoned, as it is now believed that the light is unnecessary, the beacons marking the entrance to the harbor answering all the purposes of a range. The front light, however, will be put into commission as a harbor light.

Plans were prepared for a concrete-block (subsequently changed to reenforced concrete) structure, to include a combined light-keeper's dwelling and tower, with focal plane 38 feet 7 inches above mean high water, the building to rest upon twenty-four concrete foundation cylinders or piles 3 feet in diameter. The structure is rectangular in plan, one and a half stories high, and is surmounted by a square tower supporting a fourth-order cylindrical helical-bar lantern. The main floor contains quarters for two keepers, each provided with kitchen, living room, two bedrooms, and a bathroom. There are ample closets and pantries for each keeper. The main entrance and hall are approached from the outside by a flight of concrete steps, and there are steps in the rear of the structure for both sets of quarters. The roof is framework, covered with metal tiles. The illuminating apparatus consists of an occulting fourth-order lens, revolving on ball bearings, and arranged to show a characteristic of "fixed white, 4 seconds; eclipse, 2 seconds." The illuminant is incandescent oil vapor used in a 34-millimeter Welsbach mantle, and the geographical range of the light, due to its elevation above water, is 11½ nautical miles.

Preparations for the work were begun in November, 1906, by the purchase and testing of materials. The working party built a shop at the site in April, 1907, connected the site with Sand Island by a trestle, and made test borings of the foundation soil. They commenced driving the wooden forms for the foundation cylinders in May, and the concrete work therein was completed in November, 1907, some delay being occasioned by a change in the axial position of the structure. The main floor was started in December, when it became necessary to stop work pending alterations in the plans so as to include reenforced concrete and a simpler style of structure. The work was resumed in August, 1908, and all concrete work and the erection of parapet and lantern was completed in November following. The lens was installed in February, 1909, and tiling of the roof in April. At the end of the fiscal year the work of finishing the interior of the structure was nearing completion.

Kauai, T. H.—Authorized by the act of May 14, 1908, at a cost not to exceed $75,000; appropriation, act of May 27, 1908, $75,000.

After a careful examination and surveys of the proposed sites at Mana on the west coast, and Kilauea on the north coast, it was determined to establish the light on the Kilauea site.

Hinchinbrook entrance, Alaska.—Authorized by act approved June 20, 1906, at a cost not to exceed $125,000; appropriations, act of June

30, 1906, $25,000; act of March 4, 1907, $50,000; act of March 4, 1909, $50,000.

The contractors for the construction of this station have been working at the site since the early part of April and have a portion of the material on the ground. The mail facilities in this locality are very poor and no report has been received from the superintendent in charge of the work since May 31, 1908. The station should be completed about December 31, 1909.

INCANDESCENT OIL VAPOR.

The Board having called on the district officers for their recommendations as to what lights should be outfitted with oil-vapor lamps, the reports were furnished the engineer of the Third light-house district, with instructions to carry out the recommendations at the earliest practicable date. With the increased facilities for building these lamps, consisting of a new lamp shop and equipment, it is hoped to provide for most of the stations designated in a few months.

At the present stage of our experience with this vapor illuminant it requires more constant watching than the oil lights, but with the improvements looked for as a result of experiment it will not require more supervision than the latter.

BUOYAGE.

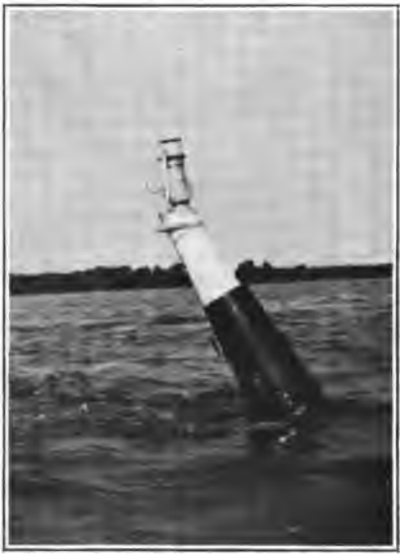
The Board now maintains 6,230 buoys of all classes on station, and has a reserve supply of 4,650 buoys, the greatest deficiency being in the number of gas-lighted buoys available for relief service. The estimated value of buoys and moorings lost during the fiscal year is $44,488.73.

The displacement of buoys and damage incident thereto continues to be excessive, and no plan has yet been devised which will successfully apprehend navigators who neglect or fail to report collisions.

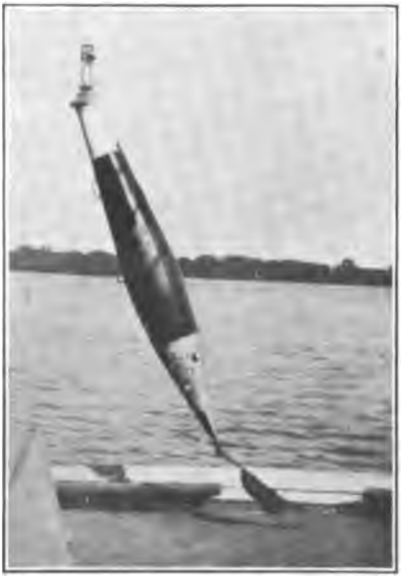
During the year special attention has been given to the adoption of an appropriate type of buoy to mark the ends of wing dams, as well as to delimit the channels in the western rivers. The anchored oil barrel, with a float attached as a platform for a light, has been abandoned for the reason that it is caught sooner or later in the drift with every rise of the river and is carried away.

As a result of careful study and investigation a type of buoy adapted to carry a lantern has been adopted and its use authorized. It was found that the buoy best adapted to fulfill the conditions peculiar to these waters is one having but a slight reserve buoyancy, in order that floating objects coming in contact with it will submerge the buoy and not displace it. The type finally adopted is a built-up spar, with a varying reserve buoyancy of from 10 to 90 pounds, due to vertical component of pull of anchor line. The complete buoy consists of a central barrel-shaped section fitted with a galvanized-iron cone at the lower end and a galvanized-iron hood at the upper end. About 100 of these buoys will be placed to mark the ends of wing dams and at the turns in fixed channels, and about 60 buoys of similar construction carrying lights will be placed in the most difficult places of navigation.

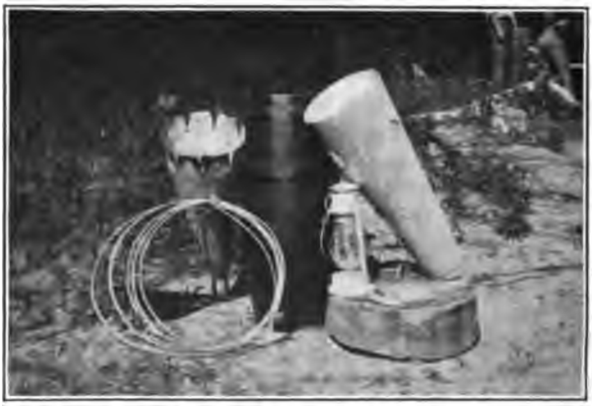
It is impossible to anticipate what calls there will be for the establishment of additional buoys during the next fiscal year, as the



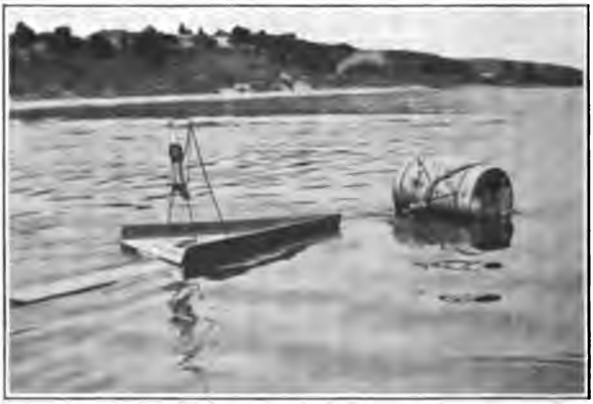
New type of built-up spar buoy carrying lantern used in the Fifteenth district, called "Lighted (red or black) spar buoy."



Built-up spar buoy, suspended to show the lantern, lantern slide, spar buoy, governor, open link, swivel, thimble, wire cable, and hand grips.



Built-up spar buoy, showing, before assembled, the cable, cone, wood package, hood, lantern and slide, and concrete mushroom.



Type of floating light formerly in use, now retained only as "relief" for "lighted spar buoy."

demands of owners of motor boats and small pleasure craft are for the establishment of buoys marking the 1-fathom curve of such bodies of water as Long Island Sound, Chesapeake Bay, and the Carolina sounds, involving the practical duplication, or more, of existing buoyage and the placing of buoys in creeks not heretofore marked.

ACETYLENE.

The approaching completion and opening to commercial uses of the Ambrose Channel, New York Harbor, required the matter of its marking by the best system of buoyage to be given serious consideration, it being felt that this important deep-water approach to New York deserved the most complete and effective system of navigational aids extant. The use of acetylene buoys was decided upon, and bids were invited for the number required. In the meanwhile the increasing inefficiency of some of the types in use indicated that the most appropriate buoy had not been decided upon. With a view to determining the system best adapted for the use of the service the apparatus of several makers has been ordered and will soon be subjected to competitive tests, and the matter of finally lighting Ambrose Channel, and the establishment of acetylene buoys in general, will be held in abeyance until these tests for endurance, efficiency, and adaptability have been completed.

The following-named stations are now marked by acetylene gas-lighted buoys: Point Judith, R. I.; Gedney Channel, N. Y.; Southwest Spit, N. Y.; Elizabeth River, Va.; Frying Pan Shoals, S. C.; St. Johns River, Fla.

Congress, by the act approved May 27, 1908, appropriated $27,000 for three lighted buoys for Chesapeake Bay, one to be established at the entrance to the bay, one at the head of the Middle Ground, and one for relief. These buoys will be delivered and ready for service about October 1, 1909. The delay was necessary to determine the kind of buoy desired.

VISIT OF THE CHAIRMAN TO EUROPEAN COUNTRIES.

At the suggestion of the Light-House Board, by resolution at one of its meetings, the Secretary of Commerce and Labor authorized the Chairman of the Board to visit such European countries as would be advisable, for the purpose of studying the organization of the light-house service of the several countries he visits, and to inspect and report upon such modern aids to navigation as are not in use in this country.

In accordance with this authority the Chairman, Rear-Admiral Adolph Marix, U. S. Navy, accompanied by Mr. Arthur V. Conover, superintendent of the general light-house depot at Tompkinsville, N. Y., sailed from New York on June 8 and reached England June 14. It was the intention of Admiral Marix when starting to visit England, Holland, France, Denmark, Sweden, Norway, and Germany, but subsequently he decided to also visit Scotland.

SALE OF PROPERTY AT THE GENERAL LIGHT-HOUSE DEPOT.

The act of March 1, 1905, authorizing the transfer of a strip of land occupied by the Light-House Establishment in Tompkinsville, N. Y., appropriated the proceeds of the sale of this property as an additional amount to the general maintenance appropriation for repairing and improving light-houses, etc., for the fiscal year 1906. The sale was consummated June 10, 1909, the United States receiving $46,514.55 for the property, which amount was covered into the Treasury. Owing to the delay in making the transfer this money is not available for the restoration of the remaining property at the depot, consisting of rebuilding retaining walls and the removal and reconstruction of houses and buildings; recommendation is therefore made that the sum of $46,514.55 be reappropriated and made available for improvements at the general light-house depot.

LIGHT-KEEPERS' DWELLINGS.

The balance of the appropriation for light-keepers' dwellings, made by the acts of March 4, 1907, and May 27, 1908, was applied to the construction of dwellings at the following-named light-stations:

- First district:
  - Whitlocks Mill, Me.
  - Fort Popham, Me.
- Third district:
  - Waackaack, N. J.
  - Jobos Harbor, P. R.
  - Port San Juan, P. R.
  - San Juan Harbor, P. R.
  - Mayaguez Harbor range, P. R.
- Fourth district:
  - Cape May, N. J.
  - Delaware Breakwater range rear, Del.
  - Assateague, Va.
- Sixth district:
  - Castle Pinckney, S. C.
  - South Island, S. C.
- Seventh district:
  - Cape San Blas, Fla.
- Eighth district:
  - East Pascagoula River, Miss.
- Ninth district:
  - Charlevoix pierhead, Mich.
  - Frankfort pierhead range, Mich.
  - St. Joseph pierhead range, Mich.
  - Waukegan Harbor, Ill.
  - Sheboygan pierhead, Wis.
  - Two Rivers pierhead, Wis.
  - Ahnapee pierhead range, Wis.
- Eleventh district:
  - Big Sable, Mich.
  - Pointe aux Barques, Mich.
- Twelfth district:
  - Fort Point, Cal.
  - Humboldt Bay, Cal.
  - Nakalele, T. H.
  - Makahuena Point, T. H.
  - Kauiki Head, T. H.
- Thirteenth district:
  - Ediz Hook, Wash.
  - Cape Blanco, Oreg.

It has been found impracticable to build a keeper's dwelling at Bodie Island light-station, North Carolina, within the amount authorized by law, and the project has therefore been abandoned.

OIL HOUSES FOR LIGHT-STATIONS.

Isolated fireproof oil houses were constructed under the appropriation "Oil houses for light-stations" at the following-named stations:

- Third district:
  - Prudence Island, R. I.
  - Split Rock, N. Y.
- Fourth district:
  - Finns Point range rear, N. J.
  - New Castle range front, Del.
  - Deep Water Point range front, N. J.
  - Deep Water Point range rear, N. J.
  - Horseshoe range (E. group), N. J.
- Seventh district:
  - Fort Barrancas range, Fla.
  - Sand Key, Fla.
- Eighth district:
  - Pass a Loutre, La.
  - New Canal, La.
  - Pass Manchac, La.
- Ninth district:
  - Chicago pierhead range, Ill.
  - Waukegan Harbor, Ill.
- Eleventh district:
  - Windmill Point, Mich.
  - Grand Marais Harbor of Refuge, Mich.
  - Grand Island, Mich.
  - Munising range, Mich.
  - Eagle Harbor range, Mich.
- Twelfth district:
  - Ano Nuevo Island, Cal.
  - Pigeon Point, Cal.
  - Fort Point, Cal.
  - Lime Point, Cal.
- Thirteenth district:
  - Ediz Hook, Wash.

The following-named oil houses were erected from special appropriations:

- Fourth district:
  - Bellevue range rear, Del.
- Twelfth subdistrict:
  - Molokai, T. H.

Cottage City breakwater, Mass.—Title to a site having been obtained, an oil house will be built at this station early in the coming fiscal year.

Edgemoor light-house depot, Del.—The construction of an oil house at this depot has been postponed, pending the execution of further improvements.

In addition to the stations mentioned on page 623 of the annual reports for the year 1908 it is recommended that isolated fireproof oil houses be constructed at the following-named stations:

- Eighth district:
  - Southwest Pass, La.
- Ninth district:
  - Grande Pointe au Sable, Mich.
- Tenth district:
  - Thirty-Mile Point, N. Y.
- Eleventh district:
  - Birch Point range, Mich.
  - Winter Point range, Mich.
  - Whitefish Point, Mich.
  - West Neebish Channel, Mich.
  - Clinton River range, Mich.
- Eleventh district—Continued.
  - Saginaw River range, Mich.
  - Devils Island, Wis.
- Twelfth district:
  - Point Arena, Cal.
  - Point Cabrillo, Cal.
- Twelfth subdistrict:
  - Kukuihaele, T. H.
  - Pauwela Point, T. H.
  - Eleele, T. H.
- Thirteenth district:
  - Yaquina Head, Oreg.

PUBLICATIONS.

With a view to increasing the practical usefulness of the Board's lists of aids to navigation, it has been directed that the names of all lighted aids be printed in bold-faced type, the names of unlighted aids (buoys, etc.) to be printed, as heretofore, in light-faced type. A list of lights, buoys, and daymarks is therefore almost as convenient for night navigation as a list containing lights only, and for vessels equipped with searchlights, to pick up the unlighted aids, it is more convenient than heretofore, because of the greater facility of distinguishing lighted from unlighted aids. In addition, several styles of bold-faced type have been used, so that the distinction heretofore made in the lists of lights between primary, secondary, etc., lights has been preserved.

With the addition to the lists of lights, buoys, and daymarks of certain details of description heretofore stated only in the lists of lights, and the use of distinctive type, as above indicated, it became practicable to discontinue the List of Lights and Fog-Signals, Northern Lakes and Rivers, and to reduce the Atlantic and Pacific lists of lights and fog-signals to lists of coast lights only.

Under the former arrangement the Canadian lights and fog signals on the northern lakes and rivers, and on the Pacific coast, were printed in a separate section of the respective lists, and without regard to their proximity or location relative to the Board's lights. In view of the fact, however, that as a rule it is immaterial to the mariner whether a light belongs to one nation or another, but that it is important to find its description in proper relation to the other aids in sight, the Canadian lights have now been arranged geographically with reference to the Board's aids, and the distinction between the two is maintained by placing after the name of each parentheses containing identifying initials.

The size of the printed page has been slightly increased, to make practicable a better arrangement of the matter, and a relatively greater increase in the size of paper has been made to secure a wide inner margin on each page on which to paste clippings from notices to mariners without encroaching on the printed matter of the page.

All bearings fixing positions of aids, etc., have been changed to degrees true, reading clockwise from 0 degrees at north to 360 degrees, and where necessary, as in sailing directions, etc., magnetic bearings in points are also given.

LIGHTING BRIDGES.

The following-named bridges have been lighted in accordance with the Regulations Governing the Lighting of Bridges since June 30, 1908:

Connecticut River, Conn. Case VI.
Spring Garden Channel, Md. Case III. Western Maryland Railroad.
Ashley River, S. C. Case III. Bees Ferry drawbridge.

LIGHT-HOUSE DEPOTS.

FIRST DISTRICT.

Bear Island, Maine.—Buoys and coal are kept at this depot. Repairs at an estimated cost of $4,000 should be made.

Little Diamond Island, Maine.—The supplies for the greater part of the district are stored at this depot. Transportation facilities by water are good, but the station can not be reached by rail. A frame storehouse similar to the others on the dock would greatly increase the efficiency of the depot in permitting the storage of oil under cover pending its distribution. The estimated cost of repairs during the next fiscal year is $3,126.

Portland, Me.—A storehouse, with berth for the tender *Myrtle*, is rented for the use of the engineer at the custom-house wharf.

SECOND DISTRICT.

Lovells Island, Massachusetts.—This depot is used as a base of supplies for the northern part of the Second district. In view of the necessity for removing this depot from Lovells Island the Board recommends that a depot be established on Governors Island, provided a conveyance of the site can be obtained from the War Department. An estimate for this purpose will be found under the appropriate heading in this report.

Woods Hole, Mass.—The supplies for the southern part of the Second district are kept here. The usefulness of the depot would be considerably increased if the channel leading to it were deepened so as to permit the larger vessels to proceed to the wharf.

Boston, Mass.—A berth for the tender *Myrtle* and a storehouse for the use of the engineer are rented at Carleton's wharf, East Boston. A machine shop at No. 5 Gilbert place is maintained under the direction of the engineer for the purpose of making repairs to illuminating and fog-signal apparatus.

THIRD DISTRICT.

Staten Island, New York.—This is the general depot of the Light-House Establishment, and the principal depot of the Third district. In its location and area it is barely ample for the care and disposition of the large stock of property of many kinds stored there and for the work of manufacture and repair. The completion, however, of the contemplated improvements, including the extension of the wharves to the harbor line of Staten Island, the construction of a new carpenter shop, and the addition of a floating dry dock and a foundry, will largely increase and improve the facilities required to carry on the work. The shops, wharves, and buildings of the depot are in good condition, and transportation facilities by rail and water are within easy reach of the depot for all lines. The act of March 1, 1905, authorizing the transfer of a strip of land occupied by the Light-House Establishment at this depot, appropriated the proceeds of the sale of this property as an additional amount to the general maintenance appropriation for repairing and improving light-houses, etc., for the fiscal year 1906. The sale was completed June 10, 1909, the United States receiving $46,514.55 for the property, which amount was covered into the Treasury. Owing to the delay in making the transfer this money is not available for the restoration of the remaining property at the depot, consisting of rebuilding retaining walls, and the removal and reconstruction of houses and buildings which must be done before the city of New York can take possession; the Board therefore recommends that the sum of $46,514.55 be reappropriated and made available for the restoration of the grounds and buildings at this station.

New London, Conn.—This depot furnishes the incidental supplies for the eastern section of the Third district, between New Haven, Conn., and Providence, R. I.

Goat Island, Rhode Island.—Supplies for light-vessels and the buoys and appendages used in the vicinity of Narragansett Bay are kept at this depot.

Juniper Island, Vermont.—This depot serves the light-stations and buoys in Lake Champlain and is well adapted to its purpose.

Guantanamo Bay, Cuba.—The depot is in fair condition and meets the requirements for which it was established.

San Juan, P. R.—A recession of jurisdiction by the legislative assembly of Porto Rico over part of the site which it is proposed to use for depot purposes is awaited.

FOURTH DISTRICT.

Edgemoor, Del.—This is the main depot of the Fourth district. The present facilities and storage space are entirely inadequate to do the work of the district. During the year a division of the wharf and depot facilities was made between the engineer and inspector, the northerly portion of the depot and the southerly pier being set apart for the use of the engineer, together with a portion of the space between the depot and the bulkhead and a portion of the site in the rear of the northerly section of the depot. Recommendations and estimates regarding improvements and extension will be found under the appropriate heading in this report.

Tucker Beach, New Jersey.—This depot is of no use to the Light-House Establishment.

Absecon, N. J.—This depot is used for the storage of buoys used in the New Jersey inlets. The structures are in poor condition and need repairs at an estimated cost of $2,000.

Cape May, N. J.—Used as headquarters for crews of Northeast End and Five-Fathom Bank light-vessels when on shore leave. A waiting room was constructed.

Lewes, Del.—The wharf and boathouse are used as headquarters for liberty boats from Fenwick Island and Overfalls light-vessels and Brandywine Shoal and Fourteen-Foot Bank light-stations. Repairs to the hoisting apparatus for boats are required at an estimated cost of $500.

Chincoteague, Virginia.—This depot is used for the storage of buoys and appendages for Chincoteague and Metomkin inlets, and as headquarters for the shore boat from Winter Quarter Shoal light-vessel. General repairs to the wharf and storehouse are required, at an estimated cost of $510.

FIFTH DISTRICT.

Lazaretto Point, Maryland.—Workshops for the preparation of material and preliminary work of construction are located here. It is proposed to move this depot to the military reservation at Fort McHenry, on the opposite side of the harbor, if the land needed for the purpose can be obtained and if an adequate amount can be realized from the sale of the present property. To this end application has been made to the War Department for a small allotment, containing about 2 acres, of the Fort McHenry tract, fronting on the harbor of Baltimore.

Portsmouth, Va.—This is a buoy and supply depot and is well adapted to the needs of the district. Repairs in the estimated amount of $1,500 are required.

Annapolis, Md.—Buoys and appendages are stored at this depot. The transportation facilities by water are good, but it can not be reached by rail.

Point Lookout, Md.—This depot is used for the storage of buoys and appendages. The transportation facilities are not good, being only by water, and a vessel lying at the wharf is very much exposed to northerly and westerly winds. Repairs are required at an estimate cost of $500.

Washington, N. C.—Buoys and supplies for the North Carolina sounds are stored here. The depot is in good condition and well adapted to the needs of the district. The platforms for coal and buoy chain should be rebuilt.

Washington, D. C.—The building of a wharf was completed in May, 1909. Designs have been completed and approved for a storehouse and its foundation.

SIXTH DISTRICT.

Castle Pinckney, S. C.—This is the general depot of the Sixth district. The station can not be reached by rail, but deep water enables vessels to lay alongside the wharves.

SEVENTH DISTRICT.

Key West, Fla.—This is the principal depot of the Seventh district. The wharf is being encroached upon by a large addition to the naval coaling plant alongside, and the depth of water, particularly on the north side of the wharf, is shoaling as a result of pumping mud along the sea wall of the naval station, with a view to increasing the area of that station. The only transportation facilities are by water. Repairs in the estimated sum of $3,500 will be required during the coming fiscal year.

Egmont Key, Fla.—Buoys and appendages for the vicinity are kept here in sheds. The station is well suited to the purposes for which it is now used. Repairs in the estimated sum of $4,000 are required.

Pensacola, Fla.—This is a depot in name only, consisting of a site for a buoy wharf and shed, ceded by the Navy Department, and remaining unimproved. In its present condition it is not adapted for carrying on the work of the district in an efficient and economical manner. A railway track in the navy-yard, connected with the railway system in Pensacola, brings rail transportation to within about 200 yards of the site. There is no water transportation, except by vessels that might be allowed to use the navy-yard wharves, there being no wharves in Warrington except for small boats.

Eighth District.

Mobile, Ala.—This depot is assigned to the engineer of the Seventh and Eighth districts, and is equipped for carrying out repair work under his direction. Repairs will be required during the coming fiscal year at an estimated cost of $2,000.

Port Eads, La.—This depot is not adapted for the work of the district, and the Board in its last annual report recommended that an appropriation of $24,000 be made to remove and establish the depot at or near New Orleans, La. The depot is situated in a marsh, and the dampness is injurious to supplies. There are no quarters for a blacksmith and helper and no shop for them. The depot is only accessible by tender, and there are no transportation facilities. The oil house is not large enough to hold the annual supply of oil when received for distribution each year, and the flooring is below the height of storm tides. On June 17, 1909, the Norwegian steamship *Texas* collided with Heald Bank light-vessel No. 81, which was lying at the depot, and 70 feet of the wharf was damaged. Repairs at an estimated cost of $3,000 should be made during the coming fiscal year.

Fort San Jacinto, Tex.—A wharf and shed for buoys and appendages were erected during the year. The transportation facilities by both rail and water are good.

Ninth District.

Milwaukee, Wis.—This depot, under the direction of the district engineer, is well equipped with shops and appliances for making repairs to illuminating and fog-signal apparatus.

St. Joseph, Mich.—This is the general supply depot for the district. The channel to the dock is in need of dredging to a depth of 16 feet; the estimated cost of this work is $2,000.

Charlevoix, Mich.—Buoys and appendages from the northerly end of Lake Michigan are stored at this depot. The storehouse and dock are in excellent condition.

Tenth District.

Rock Island, New York.—This depot is used for the storage of buoys and appendages. An additional buoy shed and buoy-head testing room are much needed. The transportation facilities are poor,

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due to isolation and lack of communication with mainland. The estimated cost of repairs during the coming fiscal year is $1,100.

Buffalo, N. Y.—The depot is inaccessible from the mainland except by water. A railroad spur to connect the depot with the Buffalo Creek Railroad has been proposed. This spur if built would greatly facilitate the delivery of supplies and other shipments to the depot. In order to prevent any possible future litigation this railroad should be constructed by the Government. A dwelling for the depot keeper should be erected on a site adjacent to the depot buildings. An additional storehouse, buoy and boat shed, derrick, and power boat are much needed and should be provided to render this station efficient.

Erie, Pa.—With the erection of an additional buoy shed this depot would serve its purpose in a satisfactory manner. The station is inaccessible except by water.

Sandusky Bay, Ohio.—Buoys and appendages from Sandusky Bay and vicinity are stored here. The station is inaccessible except by water.

Maumee Bay, Ohio.—The structures at this depot consist of a shed and wharf, used for storing buoys from Maumee Bay and vicinity. The station is inaccessible except by water.

ELEVENTH DISTRICT.

Detroit, Mich.—This depot is well equipped with a main storehouse, used for storage purposes jointly by the inspector and engineer, a shop and warehouse and buoy shed for the inspector, a larger workshop and warehouse for the engineer, and a small lamp shop. The engineer's warehouse and the lamp shop are too small and should be extended; the wharf slips should be dredged, and the wharf repaired, at an estimated cost of $10,500. The construction of a fireproof oil house at this station is much needed.

Sugar Island, Michigan.—This depot is used for the storage of buoys and appendages. The wharf should be redecked and concrete walks laid in the grounds, at an estimated cost of $900.

Minnesota Point, Minnesota.—A dwelling should be provided for the custodian. The installation of a telephone line to connect with local lines at a point about 2 miles from the station would greatly increase the efficiency of the depot.

TWELFTH DISTRICT.

Yerba Buena, Cal.—This is the only depot in the district and is too small to meet present requirements. An estimate has been submitted, asking an appropriation, in order that an additional area of land may be provided and the necessary buildings constructed.

THIRTEENTH DISTRICT.

Astoria, Oreg.—This is the general depot of the Thirteenth district. The depot is well fitted for carrying on the work assigned it, but increased area is required for the storage of bulky and heavy material. Repairs to the wharf should be made during the coming fiscal year at an estimated cost of $500.

Puget Sound, Washington.—The construction of a wharf and warehouse for the storage of buoys and supplies has been contracted for, and it is expected that this work will be completed in the near future.

NUMBER AND CHARACTER OF AIDS TO NAVIGATION.

The following table shows the number and character of the various aids to navigation in the different districts of the Light-House Establishment on June 30, 1909:

Character.	District.									
	1st.	2d.	3d.	3d sub.	4th.	5th.	6th.	7th.	8th.	9th.
LIGHTED AIDS.										
First-order lights	2	5	4	....	5	7	8	8	2	......
Second-order lights	7	3	1	1	......	....	1	1	2	1
Third-order lights	6	2	4	7	3	....	5	6	5	9
Three-and-a-half-order lights	....	1	1	2	......	....	......	1	2	2
Fourth-order lights	32	27	53	1	13	47	4	7	11	38
Fifth-order lights	20	16	17	1	8	23	3	1	12	13
Sixth-order lights	1	5	27	5	2	8	2	......	......	18
Lens-lantern lights	6	13	26	13	14	28	9	74	94	31
Range-lens lights	....	....	8	....	10	2	12	......	......	......
Reflector lights	2	9	1	....	12	10	39	......	1	1
Post-lantern lights	2	11	154	....	17	107	168	2	42	9
Electric arc lights	....	4	(1)	....	......	....	......	......	......	......
Electric incandescent lights	....	....	(2) 1	....	......	....	......	......	......	......
Light-vessels	1	12	7	....	4	6	4	......	2	5
Light-vessels, relief	....	2	4	....	2	1	1	......	......	......
Gas-lighted buoys	2	19	59	....	8	6	2	......	9	16
Total	81	129	367	30	98	245	258	100	182	143
UNLIGHTED AIDS.										
Fog-signals, steam, etc	16	9	62	....	3	8	......	......	1	38
Fog-signals, clockwork	35	15	27	....	9	66	2	......	13	8
Day beacons	142	82	42	....	4	12	66	51	73	1
Submarine signals	1	8	6	....	4	6	3	......	2	4
Whistling buoys	23	12	7	1	4	1	9	4	5	......
Bell buoys	34	25	43	3	8	10	10	10	6	2
Other buoys	785	610	804	94	245	1,383	289	295	111	112
Total	1,036	761	991	98	277	1,486	379	360	211	165
Grand total	1,117	890	1,358	128	375	1,731	637	460	393	308

Character.	District.								
	10th.	11th.	12th.	12th sub.	13th.	14th.	15th.	16th.	Total.
LIGHTED AIDS.									
First-order lights	....	....	9	....	9	....	....	......	59
Second-order lights	....	2	1	....	....	....	....	......	20
Third-order lights	6	10	4	1	5	....	....	......	73
Three-and-a-half-order lights	2	5	....	....	....	....	....	......	16
Fourth-order lights	25	40	12	3	18	....	....	......	331
Fifth-order lights	13	13	5	....	2	....	....	......	147
Sixth-order lights	15	7	....	....	....	....	....	......	90
Lens-lantern lights	30	66	19	25	16	....	....	......	464
Range-lens lights	....	....	2	....	....	....	....	......	34
Reflector lights	....	16	....	....	....	....	....	......	91
Post-lantern lights	....	107	9	2	175	596	499	433	2,333
Electric arc lights	....	....	....	1	2	....	....	......	7
Electric incandescent lights	....	(1)	....	(1)	....	....	....	......	1
Light-vessels	3	4	2	....	3	....	....	......	53
Light-vessels, relief	1	....	1	....	1	....	....	......	13
Gas-lighted buoys	30	37	3	....	3	....	....	......	194
Total	125	307	67	32	234	596	499	433	3,926
UNLIGHTED AIDS.									
Fog-signals, steam, etc	10	33	21	....	27	....	....	......	228
Fog-signals, clockwork	6	8	10	....	6	....	....	......	205
Day beacons	....	1	43	13	62	55	230	280	1,157
Submarine signals	1	3	3	....	2	....	....	......	43
Whistling buoys	....	....	17	1	10	....	....	......	94
Bell buoys	....	1	9	2	6	....	....	......	169
Other buoys	192	393	82	24	334	2	5	......	5,760
Total	209	439	185	40	447	57	235	280	7,656
Grand total	334	746	252	72	681	653	734	713	11,582

NOTE.—Numbers within parentheses indicate that lights are used in conjunction with lens.

TENDERS AND LIGHT-VESSELS IN COMMISSION.

The following tables give details covering the number and character and movement and cost of maintenance of the tenders in commission in the various districts of the Light-House Establishment on June 30, 1909, and the stations, description, and characteristics of the light-vessels in commission at the end of the year:

TENDERS IN COMMISSION.

No.	Name.	District.	Tonnage.		When built.	Description.	Material of hull.	Dimensions.			I. H. P.	Crew.		Miles steamed.	Coal consumed.	Annual cost of maintenance.
			Gross.	Net.				Length.	Breadth.	Depth.		Officers.	Men.			
	Inspectors' tenders.							*Feet.*	*Feet.*	*Feet.*					*Tons.*	
1	Anemone	11	677	300	1908	Steamer, screw	Steel	174	30	16	1,000	6	22	....	....	*$26,894.31
2	Armeria	13	1,052	632	1889	do	do	202	35	18	1,200	7	29	16,513	2,611	50,066.57
3	Aspen	11	277	82	1906	do	do	118	25	12	440	4	9	....	....	13,802.92
4	Azalea	2	[a]423	......	1891	do	do	145	25	12	400	5	17	17,523	1,359	23,482.99
5	Crocus	10	[a]626	......	1904	do	do	155	29	14	700	6	22	8,652	1,147	26,826.86
6	Cypress	6	677	300	1908	do	do	174	30	16	1,000	6	22	14,084	1,591	*31,203.48
7	Daisy	3	35	12	1892	do	Wood	74	14	5	60	2	4	10,150	236	7,748.53
8	Gardenia	3	150	83	1879	do	do	117	20	9	200	4	11	8,278	534	15,458.25
9	Geranium	1	356	175	1863	Steamer, side-wheel	do	156	23	11	210	4	14	5,807	535	18,271.15
10	Goldenrod	14	461	143	1888	Steamer, stern-wheel	Steel	150	27	4	152	5	17	8,810	863	20,768.67
11	Heather	13	[a]731	......	1903	Steamer, screw	do	165	28	15	685	5	21	12,578	1,480	34,745.37
12	Hibiscus	7	677	300	1908	do	do	174	30	16	1,000	5	23	11,095	1,590	*32,048.94
13	Holly	5	367	142	1881	Steamer, side-wheel	Comp	167	24	10	400	5	17	....	....	21,973.20
14	John Rodgers	3	260	......	1883	do	Iron	151	27	9	260	4	14	8,026	833	20,250.89
15	Juniper	5	84	57	1903	Steamer, screw	Steel	90	18	8	290	2	4	....	....	5,224.35
16	Kukui	12	677	300	1908	do	do	174	30	16	1,000	5	23	....	....	*14,146.11
17	Larkspur	3	685	......	1903	do	do	162	30	14	1,187	5	22	12,766	2,016	30,792.18
18	Lilac	1	434	212	1892	do	do	145	27	15	800	5	16	11,115	941	24,265.59
19	Lily	15	507	320	1875	Steamer, side-wheel	Wood	178	28	4	307	5	20	5,450	1,283	24,302.42
20	Madrono	12	411	206	1885	Steamer, screw	Iron	164	27	15	700	5	21	13,190	1,129	37,259.52
21	Magnolia	8	550	......	1904	do	Steel	165	30	13	720	5	22	13,521	1,694	32,477.84
22	Maple	5	392	205	1893	do	do	155	30	12	650	5	22	....	....	27,280.95
23	Mangrove	7	572	392	1897	do	do	165	30	12	550	5	23	10,278	1,441	35,364.86
24	Manzanita	13	677	300	1908	do	do	174	30	16	1,000	5	23	18,788	1,778	*11,754.28
25	Marigold	11	454	252	1890	do	Iron	150	27	12	550	7	20	....	....	24,080.03
26	Mayflower	2	572	392	1897	do	Steel	155	30	12	650	4	15	12,206	1,822	28,707.00
27	Oleander	16	344	......	1903	Steamer, stern-wheel	do	165	34	7	600	6	17	9,097	1,079	27,169.27
28	Orchid	3	677	300	1908	Steamer, screw	do	174	30	16	1,000	....	....	....	....	*27,533.43
29	Pansy	3	314	157	1878	do	Iron	147	25	11	250	4	17	1,779	289	*16,567.42
30	Sumac	9	681	386	1908	do	Steel	160	30	13	700	6	22	10,220	1,659	30,177.76

31	Sunflower	4	[a] 797	......	1907	do	do	163	31	15	900	5	24	12,422	2,157	29,245.80
32	Tulip	......	677	......	1908	do	do	190	30	13	....	5	22	14,985	2,128	*29,971.60
33	Verbena	2	295	......	1870	Steamer, side-wheel	Wood	135	26	9	300	4	15	6,937	815	18,952.79
34	Violet	5	231	103	1864	do	do	143	23	9	300	5	17	....	....	20,379.65
35	Water Lily	6	33	19	1895	Naphtha, screw	do	61	11	5	32	1	3	7,760	[b] 4,892	4,584.92
36	Wistaria	6	450	252	1882	Steamer, side-wheel	Iron	168	25	10	350	3	13	5,775	505	10,109.28
	Engineers' tenders.															
37	Amaranth	11	744	488	1892	Steamer, screw	Steel	150	28	14	672	5	20	14,203	1,222	25,807.78
38	Arbutus	7,8	400	75	1879	do	Wood	145	25	11	360	5	14	5,814	596	19,003.34
39	Columbine	13	424	212	1892	do	Steel	145	27	15	800	5	19	15,892	1,559	37,884.68
40	Hyacinth	9	738	485	1903	do	do	150	28	14	878	5	18	10,582	1,202	25,678.75
41	Iris	3	428	292	1897	do	do	142	30	10	800	5	17	6,874	868	24,444.24
42	Ivy	7,8	550	......	1904	do	do	165	30	13	700	5	24	15,155	1,653	29,932.44
43	Jessamine	5	257	155	1881	Steamer, side-wheel	Iron	146	24	10	350	5	15	....	....	22,137.09
44	Mistletoe	3	352	176	1872	do	Wood	153	26	9	370	4	13	8,364	729	20,510.93
45	Myrtle	1,2	348	240	1872	Steamer, screw	do	130	25	11	225	5	14	11,186	932	24,415.89
46	Nettle	3	22	11	1878	do	do	58	10	4	37	2	2	6,010	112	5,181.38
47	Sequoia	12	[a] 677	300	1908	do	Steel	174	30	16	1,000	5	23	3,100	567	*18,310.32
48	Snowdrop	6	32	19	1896	Naphtha, screw	Wood	61	11	5	36	2	2	7,896	[b] 6,642	5,382.01
49	Thistle	5	32	16	1890	Steamer, screw	do	60	15	7	45	2	3	....	....	5,576.02
50	Warrington	10	410	244	1868	do	do	152	25	10	485	5	15	3,717	468	13,654.89
51	Zizania	4	417	331	1888	do	Steel	150	27	12	650	5	17	....	....	20,268.60

[a] Displacement.

[b] Gallons naphtha.

* During the year the following tenders were in commission but a portion of the time, as shown: Anemone, 337 days; Cypress, 344 days; Hibiscus, 320 days; Kukui, 122 days; Manzanita, 126 days; Orchid, 296 days; Pansy, 150 days; Tulip, 352 days; Sequoia, 140 days.

LIGHT-VESSELS IN COMMISSION.

No.	Station.	Material hull.	When built.	Tonnage.		Dimensions.			I. H. P.	Fog signal.	Illuminant.
				Gross.	Net.	Length.	Breadth.	Depth.			
						Feet. in.	*Feet. in.*	*Feet. in.*			
1	Frying-pan Shoals	Wood	1855	275		103- 0	24-0	13- 0	6	12-in. whistle	Oil.
2	Relief, 4th district	do	1849	210		98- 0	25-0	9- 0		Bell	Oil.
3	Shovelful Shoal	do	1852	140		69- 0	23-0	10- 3		do	Oil.
4	Handkerchief	do	1855	104		77- 0	20-0	10- 0		do	Oil.
5	Cross Rip	do	1864	171		81- 6	21-6	9- 0		do	Oil.
6	Succonnesset Shoal	do		140		80- 0	24-0	10- 0		do	Oil.
7	Relief	do	1854	142		98- 6	22-6	11- 0			Oil.
9	Relief, 2d district	do	1857	181		81- 0	28-0	9- 6		Bell	Oil.
11	Scotland	do	1853	320		104- 0	24-8	11- 6		do	Oil.
13	Bartlett Reef	do	1854	155		79- 8	21-8	10- 4		do	Oil.
16	Relief, 3d district	do	1854	250		103- 6	22-6	11- 0		10-in. whistle	Oil.
20	do	do	1867	165		81- 6	21-6	10- 0		Bell	Oil.
23	Ram Island Reef	do	1857	186		94- 0	24-0	9- 0		do	Oil.
29	Martins Industry	do	1864	232	150	98- 0	23-6	10- 6		do	Oil.
34	Charleston	do	1864	150		95- 0	23-0	10- 0		8-in. comp. air whistle.	Oil.
39	Brenton Reef	do	1875	387		114- 4	26-9	13- 0		12 and 6 in. whistles	Oil.
41	Vineyard Sound	do	1876	387		114- 0	26-9	11- 0		12-in. whistle	Oil.
42	Great Round Shoal	do	1877	410		114- 0	26-6	10- 6		10-in. comp. air whistle	Oil.
43	South Pass	Comp	1881	191	110	a100- 9	25-0	12- 0		12-in. whistle	Oil.
44	Northeast End	Iron	1882	197		a116- 0	25-0	10- 6		do	Oil.
45	Thirty-five-Foot Channel	Steel b	1887	285	285	120- 9	27-6	12- 0		8-in. comp. air whistle.	Oil.
46	Tail of the Horseshoe	do	1887	285		119- 0	27-6	12- 0		12-in. whistle	Oil.
47	Pollock Rip	Comp	1891	296		112- 0	26-6	11- 0		do	Oil.
48	Cornfield Point	do	1891	296		112- 0	27-8	12- 0		do	Oil.
49	Cape Charles	do	1890	296		112- 0	27-0	14- 0		do	Oil.
50	Columbia River	do	1892	296		112- 0	26-9	11- 3	6	do	Oil.
51	Relief, 3d district	Steel	1892	283		110- 0	26-9	11- 0	135	do	Oil.
52	Fenwick Island Shoal	do	1892	289	197	118- 6	26-6	12- 0		do	Oil.
53	Relief, 6th district	do	1892	310		112- 0	26-6	11- 0	348	do	Oil.
54	Boston	do	1892	310		118- 0	26-0	11- 0		do	Oil.
55	Lansing Shoal	Wood	1891	129	100	90- 0	20-0	9- 0	100	6-in. whistle	Oil.
56	White Shoal	do	1891	130	101	90- 0	20-0	8-10	100	do	Oil.
57	Grays Reef	do	1891	130	101	90- 0	20-0	8-10	100	do	Oil.
59	Bar Point Shoal	do	1893	105	101	80- 0	21-6	8- 6	112	do	Oil.
60	Eleven-Foot Shoal	do	1893	105	101	80- 0	21-6	8- 6		do	Oil.
61	Lake Huron	do	1893	105	101	80- 6	21-0	9- 0		do	Oil.
62	Poe Reef	do	1893	105	101	80- 0	21-6	8- 0		do	Oil.
63	Relief, 10th district	do	1893	17	16	40- 0	13-7	2- 7		Bell	Oil.
64	Limekiln Crossing, south	do	1893	17	16	40- 0	12-0	2- 8		do	Oil.
65	Limekiln Crossing, north	do	1893	17	16	38- 0	12-6	2- 8		do	Oil.
66	Relief, 2d district	Comp	1896	c538		112- 0	29-0	10- 0	350	12-in. whistle	E. l.d

67	Umatilla Reef	Steel	1897	450	364	112- 0	28-6	13- 0	200	do	Oil.
68	Fire Island	do	1897	450	204	112- 0	28-6	12- 6	350	do	E. i.[d]
69	Overfalls	do	1897	407	204	112- 6	29-6	13- 0	350	do	E. i.[d]
70	San Francisco	do	1897	400		112- 0	28-6	13- 0	370	do	E. i.[d]
71	Diamond Shoal	do	1897	450	204	112- 0	28-6	13- 0	350	do	E. a.[e]
72	do	do	1900	[c]538		112- 0	28-6	14- 0	350	do	E. i.[d]
73	Pollock Rip Shoals	do	1901	538		112- 0	28-6	12- 9	400	do	Oil.
74	Cape Elizabeth	Wood	1902	[c]540		118- 0	28-6	13- 0		do	Oil.
75	Grossepointe	Steel	1902	160		75- 0	24-0	4- 9		Bell	Oil.
76	Relief, 12th district	do	1904	429	160	117- 7	28-8	12- 0	381	12-in. whistle	Oil.
77	Peshtigo Reef	do	1906	[c]155		75- 0	21-6	4- 0		Bell	Oil.
78	Relief, 3d district	do	1904	450	188	114- 0	28-6	12- 6	375	12-in. whistle	Oil.
79	Five-Fathom Bank	do	1904	465	188	113- 0	28-6	12- 6	368	do	Oil.
80	Cape Lookout Shoals	do	1904	465	188	113- 0	28-6	12- 6	500	do	Oil.
81	Heald Bank	do	1904	465	188	113- 0	28-6	12- 6	375	do	Oil.
82	Relief, 9th and 11th districts										
83	Blunts Reef	Steel	1904	465	188	112- 9	28-6	13- 0	380	12-in. whistle	Oil.
84	Brunswick	do	1907	488	246	112-11	29-0	13- 0		do	Oil.
85	Nantucket Shoals	do	1907	488	246	112-11	29-0	13- 0		do	E. i.[d]
86	Hen and Chickens	do	1907	488	246	136- 0	29-0	13- 0		do	Oil.
87	Ambrose Channel	do	1907	488	246	136- 0	29-0	13- 0		do	E. i.[d]
88	Columbia River	do	1907	488	246	136- 0	29-0	13- 0	380	do	Oil.
89	Martin Reef	do	1908			88- 0	21-0	7- 0		6-in. whistle	Oil.
90	Hedge Fence	do	1908	477	225	113- 6	29-6	13- 0	380	12-in. whistle	Oil.
91	Relief, 4th district	do	1908	477	225	136- 0	29-0	13- 0		do	Oil.
92	Relief, 13th district	do	1908	477	225	136- 0	29-0	13- 0			
93	Swiftsure Bank	do	1908	477	225	136- 0	29-0	13- 0		12-in. whistle	Oil.
	Bush Bluff	Comp	1876	87		60- 0	19-5	12- 0		Bell	Oil.
	Southeast Shoal [f]		1901							8-in. modoc whistle	Oil.

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[a] Over all.
[b] Steel, wood sheathed.
[c] Displacement.
[d] Electric, incandescent.
[e] Electric, arc.
[f] Maintained during summer by contract with Lake Carriers Association.

LIGHTED AIDS.

The following is a list of stations using illuminants other than oil in regular service lamps.

INCANDESCENT OIL VAPOR LIGHTS (35).

- Third district (24):
  - Block Island SE., R. I.
  - Shinnecock Bay, N. Y.
  - Fire Island, N. Y.
  - Little Gull Island, N. Y.
  - Sandy Hook rear, N. J.
  - Horton Point, N. Y.
  - Eatons Neck, N. Y.
  - Montauk Point, N. Y.
  - Great Captain Island, Conn.
  - Point Judith, R. I.
  - Block Island N., R. I.
  - Pecks Ledge, Conn.
  - Plum Island, N. Y.
  - Watch Hill, R. I.
  - New London Harbor, Conn.
  - West Bank, N. Y.
  - North Hook, N. J.
  - Falkner Island, Conn.
  - Old Field Point, N. Y.
  - Point Comfort, N. J.
  - Conover beacon, N. J.
- Third district—Continued.
  - Chapel Hill, N. J.
  - Elm Tree, N. Y.
  - New Dorp, N. Y.
- Fourth district (2):
  - Harbor of Refuge, Del.
  - Bellevue range rear, Del.
- Sixth district (1):
  - Charleston, S. C.
- Seventh district (1):
  - Key West, Fla.
- Eighth district (1):
  - Bolivar Point, Tex.
- Ninth district (2):
  - Sturgeon Bay Canal, Wis.
  - Tail Point, Wis.
- Eleventh district (3):
  - Isle aux Peches range front, Mich.
  - Detour, Mich.
  - Marquette, Mich.
- Thirteenth district (1):
  - Patos Island, Wash.

ACETYLENE LIGHTS (65).

- Third district (12):
  - Corner Stake, N. J.
  - South Hook front, N. J.
  - Jones Rocks, Conn.
  - United States Dike No. 1, N. J.
  - United States Dike No. 3, N. J.
  - Lower Rocky Point No. 2, N. J.
  - Low Moor No. 7, N. J.
  - Northwest Point No. 2A, N. J.
  - Little Silver No. 9, N. J.
  - Goose Neck Point No. 11, N. J.
  - Cooks Sedges No. 13, N. J.
  - Sands Point No. 4, N. J.
- Fourth district (2):
  - Finns Point Jetty, N. J.
  - Christiana South Jetty, Del.
- Seventh district (1):
  - Caucus Cut and Pensacola Bay range rear, Fla.
- Eighth district (47):
  - Sand Island rear, Ala. (2).
  - Mobile Ship Channel, Ala. (28).
  - Lake Borgne, Miss.
  - Southwest Pass East Jetty, La.
  - Southwest Pass West Jetty, La.
  - Sabine Pass, La. and Tex. (6).
  - Galveston Jetty, Tex.
  - Second Turn, Tex.
  - Hitchcock Reef, Tex.
  - East Bank, Tex.
  - Texas City Channel, Tex. (2).
  - Galveston Bay Channel, Tex. (2).
- Ninth district (2):
  - Holland Pierhead range front, Mich.
  - Milwaukee Breakwater, Wis.
- Eleventh district (1):
  - Isle aux Peches range rear, Mich.

ELECTRIC ARC LIGHTS.

- Second district:
  - South Boston range, Mass. (3).
  - Wamsutta Mill, Mass.
- Third district:
  - Navesink, N. J.
- Twelfth subdistrict:
  - Waiakea, T. H.
- Thirteenth district:
  - Coquille River range, Oreg.

ELECTRIC INCANDESCENT LIGHTS.

- Third district:
  - Blackwells Island Reef, N. Y. (2).
  - Goat Island Shoal, R. I.
- Eleventh district:
  - Marquette Breakwater, Mich.
- Twelfth subdistrict:
  - Cocoanut Point, T. H.

GASLIGHTS.

Second district:
- Newburyport Upper Harbor range, Mass. (2).

Sixth district:
- Main Channel range rear, S. C.

SUBMARINE SIGNALS.

The following list gives the location of the submarine signals in commission June 30, 1909.

First district:
- Cape Elizabeth light-vessel No. 74.

Second district:
- Vineyard Sound light-vessel No 41.
- Great Round Shoal light-vessel No. 42.
- Pollock Rip light-vessel No. 47.
- Boston light-vessel No. 54.
- Relief light-vessel No. 66.
- Pollock Rip Shoals light-vessel No. 73.
- Nantucket Shoals light-vessel No. 85.
- Hedge Fence light-vessel No. 90.

Third district:
- Brenton Reef light-vessel No. 39.
- Cornfield Point light-vessel No. 48.
- Fire Island light-vessel No. 68.
- Ambrose Channel light-vessel No. 87.
- Relief light-vessel No. 16.
- Relief light-vessel No. 78.

Fourth district:
- Northeast End relief No. 78.
- Five-Fathom Bank light-vessel No. 79.
- Overfalls relief No. 16.
- Fenwick Island Shoal light-vessel No. 52.
- Winter Quarter Shoal light-vessel No. 91 (relief).

Fifth district:
- Cape Charles light-vessel No. 49.
- Tail of the Horseshoe light-vessel No. 46.
- Thirty-five Foot Channel light-vessel No. 45.

Fifth district—Continued.
- Diamond Shoal light-vessel No. 71.
- Diamond Shoal light vessel No. 72.
- Cape Lookout Shoals light-vessel No. 80.

Sixth district:
- Frying Pan Shoals light-vessel No. 1.
- Brunswick light-vessel No. 84.
- Relief light-vessel No. 53.

Eighth district:
- South Pass light-vessel No. 43.
- Heald Bank light-vessel No. 81.

Ninth district:
- Lansing Shoal light-vessel No. 55.
- White Shoal light-vessel No. 56.
- Grays Reef light-vessel No. 57.
- Eleven Foot Shoal light-vessel No. 60.

Tenth district:
- Southeast Shoal light-vessel.
- Bar Point Shoal light-vessel No. 59.

Eleventh district:
- Lake Huron light-vessel No. 61.
- Poe Reef light-vessel No. 62.
- Detour light-station.

Twelfth district:
- San Francisco light-vessel No. 70.
- Blunts Reef light-vessel No. 83.
- Relief light-vessel No. 76.

Thirteenth district:
- Umatilla Reef light-vessel No. 67.
- Columbia River light-vessel No. 88.

LIGHTS ESTABLISHED AND DISCONTINUED.

The following tables show the location and character of the lights established and discontinued during the fiscal year 1909:

LIGHTS ESTABLISHED.

District.	Location.	Character.
Second	Nantucket Harbor range, Mass. (2)	Lens lantern.
	Menemsha Harbor, Mass. (2)	Do.
Third	Sag Harbor Breakwater, N. Y	Do.
	Bridgeport East Breakwater, Conn	Post lantern.
	Port Chester Channel, N. Y	Do.
	Cabras Island, P. R	Sixth order.
Fourth	Harbor of Refuge, Del	Fourth order.
	Bellevue range rear, Del	Do.
	Bellevue range front, Del	Reflector.
	Finns Point Jetty, N. J	Lens lantern.

LIGHTS ESTABLISHED—Continued.

District.	Location.	Character.
Fourth	Duck Island, N. J	Post lantern.
	Biles Island, Pa	Do.
Fifth	Baltimore, Md	Fourth order
	Pungoteague Creek, Va	Lens lantern.
	La Trappe Creek Outer, Md	Do.
	La Trappe Creek Inner, Md	Do.
	Pultz Bar, Va	Post lantern.
	Galley Hook Point, Va	Do.
	Ship Neck, Va	Do.
	Barn Point, Va	Do.
	Woodleys Pier, N. C	Do.
	Hollidays Island, N. C	Do.
	Log Slough, N. C	Do.
Sixth	Cooper River, S. C.:	
	Drum Island South, No. 4	Do.
	Drum Island West, No. 6	Do.
	Town Creek North, No. 5	Do.
	Drum Island North Spit, No. 8	Do.
	Daniels Island Shoal, No. 10	Do.
	Middle Shoal, No. 7	Do.
	Marsh Point, No. 9	Do.
	Upper Marsh, No. 11	Do.
	Ashley River, S. C.: Wappoo Cut, No. 2	Do.
	St. Johns River, Fla.:	
	Pilot Town range (2)	Do.
	Training Wall range rear	Do.
	Clapboard Creek range rear	Do.
	Dame Point Dredged Cut, No. 9	Do.
	Curved Channel, No. 15	Do.
	Middle Ground, No. 19¼	Do.
	Steep Bank, No. 19¾	Do.
	Cape Fear River, N. C.:	
	Horseshoe shoal range front, No. 2¼	Do.
	Orton Cove range, No. 3	Do.
Seventh	Hillsboro Bay, Fla. (8)	Lens lantern.
Eighth	Tangipahoa River, La	Do.
	Pass Manchac East Channel, La	Do.
	Pass Manchac South Channel, La	Do.
	Southwest Pass West Jetty, La	Do.
	Southwest Pass East Jetty, La	Do.
	South Pass West Jetty rear, La	Post lanern.
	Entrance range, Sabine Pass, Tex. (2)	Lens lantern.
	Inner range, Sabine Pass, Tex. (2)	Do.
	Sabine Pass Channel, Tex	Do.
	Port Arthur Canal, Tex	Do.
	Double Bayou, Tex. (2)	Do.
Ninth	Holland Pierhead range rear, Mich	Fourth order.
	Ludington south breakwater, Mich	Lens lantern.
	Saugatuck Harbor, north entrance, Mich	Do.
	Holland pierhead range front, Mich	Do.
	Chicago pierhead range front, Ill	Do.
Tenth	Cleveland east breakwater pierhead, Ohio	Do.
	Cleveland west breakwater pierhead, Ohio	Do.
	Lorain east breakwater pierhead, Ohio	Do.
	Lorain west breakwater pierhead, Ohio	Do.
Eleventh	Rock of Ages, Mich	Third order.
	Munising range, Mich. (2)	Reflector.
	West Neebish Channel, Mich. (26)	Lens lantern.
	Clinton River range, Mich. (2)	Post lantern.
	Duluth Harbor Basin, Minn. (2)	Do.
	St. Louis River, Minn. (8)	Do.
Twelfth	Point Cabrillo, Cal	Third order.
	Napoopoo, T. H	Lens lantern.
	Nakalele Head, T. H	Do.
Thirteenth	Patos Island, Wash	Fourth order.
	Fort Columbia Wharf, Wash	Post lantern.
	Elliott Point, Wash	Do.
	Bayview	Do.
	Channel west side gas buoy 1½	Lens lantern.
	Cooper Point range (2)	Post lantern.
	Abernethy Point, Wash	Do.
	Post-Office Bar range rear, Oreg	Do.
	Lincoln Bar, Oreg	Do.
	La Conner South Jetty, Wash	Do.
	Canal Point, Alaska	Do.
	Point Romanoff, Alaska	Do.
Fourteenth	3 post-lantern lights	
Fifteenth	66 post-lantern lights	
Sixteenth	39 post-lantern lights	

LIGHTS DISCONTINUED.

District.	Location.	Character.
Second	Nantucket Cliff range, Mass	2 reflectors.
Third	Elbow beacon, N. J	Post lantern.
	Coxsackie icebreaker, N. Y	Sixth order.
Fourth	Christiana, Del	Fourth order.
	Harbor of Refuge temporary beacon (S. end), Del	Lens lantern.
	Edgemoor, Del	Do.
Sixth	Cockspur Island, Ga	Sixth order.
	Lazaretto, S. C	Post lantern.
	Old Brunswick No. 3, N. C	Do.
Seventh	Tampa Cut No. 6, Fla	Do.
Ninth	Holland pierhead range rear, Mich	Do.
	Kalamazoo pierhead, Mich	Do.
Eleventh	Grand Island Harbor, Mich	Fifth order.
	Eagle River, Mich	Lens lantern.
Thirteenth	Patos Island, Wash	Do.
	Three-Tree Island Shoal range rear, Oreg	Post lantern.

LIGHTS TO BE ESTABLISHED.

The following is a list of lights to be established during the fiscal year 1910, together with the number of additional keepers required:

District.	Location.	Character.	Keepers.
Third	Branford Reef, Conn	Lens lantern	
	Southwest Ledge, Conn	Fourth order	3
	Lloyd Harbor, N. Y	do	1
	Point Judith breakwater, R. I	Lens lantern	1
	Passaic, N. J	Fourth order	
Fourth	Sea Haven, N. J	Lens lantern	1
	Miah Maull Shoal, N. J	do	3
	Elbow of Cross Ledge, N. J	Fourth order	
	Leipsic River range, Del	2 lens lanterns	1
	Goose Island Flats, N. J	Lens lantern	
Fifth	Ragged Point, Md	Fourth order	2
	Ware Point Shoal, Va	Post lantern	1
	Dimers Creek Flats, Va	do	1
	Port Hand Shoal, Va	do	
	Persimmon Point Shoal, Md	do	
	Port Tobacco River Flats, Md	do	
	Matomkin Point Middle Ground, Md	do	
	Pooles Island range, Md	2 post lanterns	1
	Bay Point, N. C	Post lantern	1
	Lower Broad Creek, N. C	do	1
Sixth	South Jetty, Winyah Bay, S. C	Fifth order	1
Seventh	Tampa Bay, Fla.:		
	Cut C range	2 lens lanterns	
	Cut E range	do	
	Cut F range	do	
	Carrabelle entrance range, Fla	do	
	Apalachicola Bay, Fla.:		
	West Pass cut range	do	
	Sand Island cut range	do	
Eighth	Texas City, Tex	3 lens lanterns	
	Gulfport, Miss	Lens lantern	
	Cedar Bayou North Jetty, Tex	Post lantern	
	Morgan Point Channel, Tex		1
Ninth	White Shoal, Mich	Second order	3
	North Point, Wis	Fourth order	1
Eleventh	Split Rock, Minn	Third order	3
	Duluth Harbor North pier, Minn		
Twelfth	Carquinez Strait, Cal	Fourth order	3
	Makapuu Point, T. H	Hyper-radiant	3
	Molokai, T. H	Second order	3
	Kukuihaele, T. H	Lens lantern	1
	Kailua, T. H	do	1
	Pauwela Point, T. H	do	1
	Eleele, T. H	do	1
Thirteenth	Snake River, Alaska	2 post lanterns	1
	Apoon Mouth, Alaska	Post lantern	1
	Pastolik River, Alaska	do	1
	Pastol Bay, Alaska	2 post lanterns	1
	Point Spencer, Alaska	Post lantern	1
	Kingegan, Alaska	do	1
	Cape Espenberg, Alaska	do	1

LIGHT-VESSELS ESTABLISHED AND DISCONTINUED.

The following-named light-vessels were established or discontinued during the fiscal year 1909:

LIGHT-VESSELS ESTABLISHED.

- **Second district:**
  - Hedge Fence No. 90, Mass.
- **Third district:**
  - Ambrose Channel No. 87, N. Y.
- **Fifth district:**
  - Thirty-five Foot Channel No. 45, Chesapeake Bay.
- **Eleventh district:**
  - Martins reef No. 89, Mich.
- **Thirteenth district:**
  - Columbia River No. 88, Oreg.
  - Swiftsure Bank No. 93, Wash.

LIGHT-VESSELS DISCONTINUED.

- **Third district:**
  - Sandy Hook No. 51, N. Y.
- **Thirteenth district:**
  - Columbia River No. 50, Oreg.

A light-vessel will be established in 1910 in the Sixth District, Knuckle of Frying Pan Shoals No. 94, North Carolina.

FOG-SIGNALS ESTABLISHED AND DISCONTINUED.

The following fog-signals were established and discontinued during the fiscal year 1909:

FOG-SIGNALS ESTABLISHED.

District.	Location.	Character.
Second	Plymouth (Gurnet), Mass	First-class Daboll trumpet.
	Edgartown, Mass	Bell, machinery.
Third	Watch Hill, R. I	Third-class Daboll trumpet.
	West Bank, N. Y	Do.
Fourth	Billingsport range front, N. J	Bell, machinery.
Fifth	Sandy Point, Md	Third-class Daboll trumpet.
	Baltimore, Md	Bell, machinery.
Eighth	Lake Borgne, Miss	Do.
Ninth	Grande Pointe au Sable, Mich	First-class compressed-air siren.
	Charlevoix pierhead, Mich	Bell, machinery.
Eleventh	Rock of Ages, Lake Superior	Compressed-air siren.
	Marquette breakwater, Mich	Bell, machinery.
Twelfth	Humboldt Bay, Cal	6-inch compressed-air siren.
	Point Cabrillo, Cal	Do.
Thirteenth	Ediz Hook, Wash	First-class automatic siren.

FOG-SIGNALS DISCONTINUED.

Second	Plymouth (Gurnet), Mass	Bell, machinery.
Third	West Bank, N. Y	Compressed-air siren.
Fifth	Sandy Point, Md	Bell, machinery.
Thirteenth	Ediz Hook, Wash	Do.

FOG-SIGNALS TO BE ESTABLISHED.

The following-named fog-signals will be established during the fiscal year 1910:

District.	Location.	Character.
Second	Nobska Point, Mass	First-class Daboll trumpet.
Third	Rose Island, R. I	Third-class Daboll trumpet.
	Southwest Ledge, Conn	First-class compressed-air siren.
	Esopus Island, N. Y	Bell, machinery.
	Lloyd Harbor, N. Y	Do.
	Negro Point, N. Y	Do.
Fourth	Harbor of Refuge, Del	Compressed-air siren.
	Miah Maull Shoal, N. J	Bell, machinery.
	Elbow of Cross Ledge, N. J	Do.
Fifth	Ragged Point, Md	Do.
Ninth	White Shoal, Mich	10-inch compressed-air whistle.
	Two Rivers pierhead, Wis	Bell, machinery.
	Ahnapee pierhead range rear, Wis	Blower siren.
Tenth	Conneaut Harbor front, Ohio	Bell, machinery.
Eleventh	Split Rock, Minn	Compressed-air siren.
	Cheboygan Crib, Mich	Bell, machinery.
Twelfth	Carquinez Strait, Cal	6-inch compressed-air siren.
Thirteenth	Cape Arago, Oreg	First-class automatic siren.

DAYMARKS ESTABLISHED AND DISCONTINUED.

The following statement shows the daymarks established and discontinued during the fiscal year 1909:

DAYMARKS ESTABLISHED.

First district:
- Channel Rock, Pleasant Bay, Me.
- Blacksmith Shop Ledge, Sassanoa River, Me.
- Emery Island, Muscle Ridge Channel, Me.
- The Boilers, Sassanoa River, Me.
- Nicks Ledge, Sheepscot River, Me.
- Marrs Ledge, Sheepscot River, Me.
- Channel Rock, Great Wass Channel, Me.

First district—Continued.
- Pomps Ledge, Moosabec Reach, Me.

Second district:
- Forest River Rock, Salem Harbor, Mass.

Fourth district:
- Broadkill Jetty, Del.

Thirteenth district:
- Grays Harbor, Wash. (4).

DAYMARKS DISCONTINUED.

Fourth district:
- Broadkill, Del.

Sixth district:
- Savannah River, Ga.—
  - Upper Oyster Rock.
- St. Johns River, Fla.—
  - Cedar Creek Cut.
  - Dame Point Dredged Cut No. 9.
  - Dunn Creek Upper No. 15.
  - Cedar Creek Cut Training Wall Lower.
  - Dame Point Dredged Cut Lower No. 8.
  - Browns Creek range front and rear.

Eighth district:
- Pass Christian east entrance, Miss.
- Pass Christian west entrance, Miss.
- Tangipahoa River, La.

Twelfth subdistrict:
- Queen Emma No. 8, Pearl Harbor, T. H.
- Windmill Point No. 9, Pearl Harbor, T. H.
- West Loch No. 14, Pearl Harbor, T. H.
- Bishops Point No. 12, Pearl Harbor, T. H.

Thirteenth district:
- Main Channel No. 4, Willapa Bay, Wash.

SUBMARINE SIGNALS ESTABLISHED AND DISCONTINUED.

The following-named submarine signals were established or discontinued during the fiscal year 1909:

SUBMARINE SIGNALS ESTABLISHED.

Second district:
- Hedge Fence light-vessel No. 90, Mass.

Fourth district:
- Northeast End light-vessel, N. J.

Fifth district:
- Thirty-five Foot Channel light-vessel No. 45, Va.

Thirteenth district:
- Columbia River light-vessel No. 88, Oreg.

SUBMARINE SIGNALS DISCONTINUED.

Second district:
- Hen and Chickens light-vessel No. 86, Mass.

Thirteenth district:
- Columbia River light-vessel No. 50, Oreg.

FINANCIAL STATEMENT.

APPROPRIATIONS.

The following statement shows the appropriations made for the Light-House Establishment by the Sixtieth Congress, second session:

Supplies of light-houses, 1910 (act Mar. 4, 1909)	$726,000
Salaries of keepers of light-houses, 1910 (act Mar. 4, 1909)	1,250,000
Expenses of light-vessels, 1910 (act Mar. 4, 1909)	963,800
Expenses of buoyage, 1910 (act Mar. 4, 1909)	926,000
Lighting of rivers, 1910 (act Mar. 4, 1909)	375,000
Repairs and incidental expenses of light-houses, 1910 (act Mar. 4, 1909)	950,000
Expenses of fog-signals, 1910 (act Mar. 4, 1909)	290,000
Oil houses for light-stations (act Mar. 4, 1909)	10,000
Great Lakes Channel lights (act Mar. 4, 1909)	4,000
Southeast Shoal light-vessel, Lake Erie (act Mar. 4, 1909)	4,000
Neebish Channel lights, St. Marys River, Mich. (act Mar. 4, 1909)	3,000
Repairs to light-house tender *Pansy* (act Mar. 4, 1909)	12,000
Relief of Commander L. C. Heilner, U. S. Navy (act Mar. 4, 1909)	Authority.

SPECIAL WORKS.

First district: Tender for First light-house district, completing (act Mar. 4, 1909)	100,000
Third district:	
Point Judith breakwater lights, R. I. (act Mar. 4, 1909)	12,000
Southwest Ledge light-station, Conn., completing (act Mar. 4, 1909)	60,000
Staten Island and West Bank light-stations, N. Y., completing (act Mar. 4, 1909)	50,000
Ambrose Channel, N. Y., lighting (act Mar. 4, 1909)	55,000
Ninth district: North Point light-station, Wis., raising tower (act Mar. 4, 1909)	10,000
Eleventh district:	
Rock of Ages light-station, Lake Superior (act Mar. 4, 1909)	15,000
Duluth Harbor entrance, North Pier light-station, Minn. (act Mar. 4, 1909)	4,000
Twelfth district: Alcatraz light-station, Cal. (act Mar. 4, 1909)	35,000
Thirteenth district:	
Aids to navigation, Alaskan waters (act Mar. 4, 1909)	60,000
Hinchinbrook Entrance light-station, Alaska, completing (act Mar. 4, 1909)	50,000

EXPENDITURES.

Following is a statement of expenditures made by disbursing officers from appropriations under the Light-House Establishment during the fiscal year ended June 30, 1909:

Supplies of light-houses:	
1907	$1,412.43
1908	47,712.96
1909	553,968.45
Salaries of keepers of light-houses:	
1908	5,069.16
1909	1,063,342.50
Expenses of light-vessels:	
1907	6,195.65
1908	77,741.22
1909	678,672.41
Expenses of buoyage:	
1907	3,497.47
1908	81,211.18
1909	564,871.57
Lighting of rivers:	
1907	11,552.73
1908	6,358.38
1909	346,449.93
Repairs and incidental expenses of light-houses:	
1907	11,455.97
1908	71,891.83
1909	745,695.61
Expenses of fog-signals:	
1907	9,633.29
1908	29,977.89
1909	175,299.75
Oil houses for light-stations	9,573.81
Light-keepers' dwellings	70,001.18
Porto Rican light-house service	10,409.71
Guantanamo light-house service	2,992.87
Southeast Shoal light-vessel, Lake Erie	4,000.00
Great Lakes channel lights	4,000.00
Tender for First light-house district	465.83
Isle au Haut light-station, Me	1,469.10
Hedge Fence Shoal light-vessel, Mass	14,884.48
Nantucket Shoals light-vessel, Mass	3,427.00
Tender for Third light-house district	61,692.51
Tender for Porto Rico	87,824.40
Tender for engineer, Third light-house district	430.83
Ambrose Channel light-vessel, N. Y	3,621.02
Anchorage buoys, port of New York	7,537.23
Point Judith lighted buoy, R. I	5,062.00
Staten Island light-house depot, N. Y	27,968.00
Staten Island and West Bank light-station, N. Y	1,265.81
Stonington breakwater light-station, Conn	5,555.14
Southwest Ledge light-station, Conn	38,916.85
San Juan light-house depot, P. R	64.00
Lloyd Harbor light-station, N. Y	534.20
Negro Point light-station, N. Y	190.00
New Haven Harbor light-station, Conn	578.00
Relief light-vessel, Fourth light-house district	13,984.49
Delaware River post lights, N. J	289.87
Delaware River range lights, N. J	12,812.36
Delaware Breakwater light-station, Del	18,437.04
Bellevue range lights, Delaware River	23,308.91
Elbow of Cross Ledge light-station, N. J	9,150.53
Miah Maull Shoal light-station, Delaware River	30,696.20
Goose Island Flats lights, Del	346.50

Schooner Ledge range lights, Pa	$8,576.80
Joe Flogger shoal light-station, Delaware River	118.58
Baltimore light-station, Md	83,282.94
Cape Lookout light-station, N. C	147.43
Pungoteague Creek light-station, Va	5,571,62
La Trappe River lights, Md	9,340.19
Ragged Point light-station, Potomac River	11,460.84
Washington, D. C., light-house depot	8,608.29
Tender for inspector Sixth light-house district	89,792.83
Frying Pan Shoal light-vessel, N. C	2,528.07
St. Johns River lighted buoy, Fla	11,522.00
Tender for Seventh light-house district	89,660.78
Tender for inspector, Eighth light-house district	1,236.66
Lake Borgne light-station, Miss	5,639.00
Southwest Pass light-station, La	10,377.15
Galveston Jetty light-station, Tex	40.80
Fort San Jacinto light-house depot, Tex	7,605.45
Milwaukee light-vessel, Wis	1,929.15
Fox River and Lake Winnebago post lights	67.33
White Shoal light-station, Lake Michigan	106,777.58
Menominee Harbor light-station, Mich	5,000.00
Grande Pointe au Sable fog-signal, Mich	10,048.48
Racine Reef light-station, Wis	1,013.02
St. Joseph light-house depot, Mich	732.34
Cleveland Harbor Breakwater light-station, Ohio	255.55
Tender for Lake Superior	98,886.26
West Neebish Channel lights, St. Marys River, Mich	19,004.11
Rock of Ages light-station, Mich	28,363.48
Munising light-station, Mich	14,094.17
Detour light-station, Mich	8.41
Split Rock light-station, Lake Superior	1,727.59
Isle au Peches range lights, Mich	35.20
Apostle Group Islands survey, Mich	1,246.36
Duluth Range light-station, Minn	200.00
St. Marys River range lights, Mich	127.65
Martins Reef light-vessel, Lake Huron	9,046.52
Tender for Twelfth light-house district	113,821.64
Tender for Pacific Ocean	112,258.75
Point Arena light-station, Cal	5,415.43
Makapuu Point light-station, Oahu, Hawaii	6,460.20
Molokai light-station, Hawaii	51,186.11
Honolulu Harbor light-station, Hawaii	13,798.41
Carquinez Strait light-station, Cal	23,951.30
Point Cabrillo light-station, Cal	42,783.96
Bonita Point light-station, Cal	29.85
Cape Mendocino light-station, Cal	131.17
Humboldt Bay fog signal, Cal	7,963.08
Punta Gorda light-station, Cal	863.18
Kauai Island light-station, Hawaii	534.57
Relief light-vessel, for Pacific coast	27,201.60
Swiftsure Bank light-vessel, Wash	46,434.80
Columbia River light-vessel, Oreg	12,690.99
Hinchinbrook Entrance light-station, Alaska	8,730.09
Ediz Hook light-station, Wash	617.37
Cape Arago light-station, Oreg	11,959.46
Light and fog-signal stations, Alaska	3,005.36
Cape Blanco survey, Oreg	17.20
Tender for Thirteenth light-house district	85,731.55
Battery Point fog-signal, Wash	60.00
Tender for Fifteenth light-house district	339.76
Total	6,183,608.18

The following is a statement of the amounts expended from appropriations under the light-house establishment by direct settlement through the Auditor for the State and other Departments during the fiscal year ended June 30, 1909:

Supplies of light-houses:	
1907	$195.41
1908	10,038.54
1909	16,021.48
Salaries of keepers of light-houses, 1907	14,194.13
Expenses of light-vessels:	
1907	9,500.00
1908	4,325.77
1909	4,229.46
Expenses of buoyage:	
1907	9,005.37
1908	13,124.61
1909	29,620.29
Lighting of rivers:	
1908	83.56
1909	76.59
Repairs and incidental expenses of light-houses:	
1907	1,209.70
1908	1,478.09
1909	3,162.81
Expenses of fog-signals:	
1908	35.08
1909	12.28
Porto Rican light-house service	760.32
Guantanamo light-house service	125.49
Hedge Fence Shoal light-vessel, Mass	.47
Tender for Third light-house district	210.60
Tender for Porto Rico	1,201.39
Relief light-vessel, Fourth light-house district	43.01
Tender for inspector, Sixth light-house district	459.84
Tender for Seventh light-house district	4,754.60
Hillsboro Inlet light-station, Fla	1.57
Lake Borgne light-station, Miss	1.45
Tender for Lake Superior	2,171.29
Tender for Twelfth light-house district	1,632.55
Tender for Pacific Ocean	1,003.40
Point Arena light-station, Cal	643.63
Humboldt Bay fog-signal, Cal	1.75
Point Cabrillo light-station, Cal	114.98
Molokai light-station, T. H	227.91
Reimbursement to Territory of Hawaii	23,393.69
Relief light-vessel for Pacific coast	99.12
Swiftsure Bank light-vessel, Wash	99.12
Tender for Thirteenth light-house district	212.75
Columbia River light-vessel, Oreg	539.17
Light and fog-signal stations, Alaska	65.29
Cape Blanco survey, Oreg	1.20
Total	154,077.76
Amount of expenditures by disbursing officers	6,183,608.18
Amount of settlements by auditor	154,077.76
Grand total	6,337,685.94

ESTIMATES.

The following is a statement of the estimates of appropriations for the Light-House Establishment for the fiscal year 1911:

(1) Toward the general maintenance of the Light-House Establishment.

Supplies of light-houses, 1911	$725,748
Repairs and incidental expenses of light-houses, 1911	946,790
Salaries of keepers of light-houses, 1911	1,250,000
Expenses of light-vessels, 1911	963,125
Expenses of buoyage, 1911	924,450
Expenses of fog signals, 1911	289,485
Lighting of rivers, 1911	450,375
Great Lakes channel lights	4,000
Southeast Shoal light-vessel, Lake Erie	4,000
Neebish Channel lights, St. Marys River, Mich	3,000
Repairs to light-house tender *Amaranth*	25,000
Fire Island light-station, N. Y. (illuminating apparatus)	30,000
Buffalo breakwater (north end) light station, N. Y. (rebuilding)	43,200
Sand Island light-station, Ala. (protecting site)	25,000

(2) Toward the construction of works asking an increase in the limit of cost authorized by law.

Joe Flogger Shoal light station, Delaware Bay (completing)	$65,000

(3) For the construction of works not heretofore authorized.

General service:		
Light-keepers' dwellings		$75,000
Oil houses for light-stations		10,000
Two light-house tenders		270,000
Four light-vessels		460,000
First district:		
Otter Island, Me., light and fog-signal		19,000
Clark Ledge, Me., light and fog-signal		50,000
Boon Island, Me., fog-signal		20,000
Little River Head, Me., fog-signal		30,000
Tender for engineer First and Second light-house districts		200,000
Second district: Boston light-house depot, Mass		75,000
Third district:		
Hunts Point, N. Y., light and fog-signal		5,000
Navassa Island survey		3,000
Staten Island light-house depot, N. Y.—		
Blacksmith shop	$25,000	
Extension wharves	40,000	
Floating dry dock	85,000	
		150,000
Guantanamo, Cuba, keepers' dwelling		14,000
Fourth district:		
Eagle Point, N. J., range lights		2,950
Launch for Fourth light-house district		35,000
Edgemoor light-house depot, improvements		51,000
Fifth district:		
Fort McHenry Channel, Md., range lights		125,000
Norfolk Harbor, Va., range lights		35,000
Sixth district: Bloody Point, Ga., range lights		4,500
Seventh district: Pensacola light-house depot, Fla		4,700
Eighth district:		
Mississippi River lights, La		24,000
New Orleans light-house depot, La		27,500
Ninth district:		
Lansing Shoal, Mich., light and fog-signal		250,000
North Manitou light-vessel, Lake Michigan		50,000
St. Joseph, Mich., barge for depot		7,000

Tenth district:	
Lorain, Ohio, range lights	$19,800
Huron pierhead, Ohio, range lights	3,800
Eleventh district:	
Gull Island, Lake Superior, light and fog signal	150,000
Duluth range, Minn., keepers' dwelling	10,000
Detroit light-house depot, Mich., oil house	3,500
Twelfth district:	
Army Point, Cal., light and fog-signal	10,000
Santa Cruz, Cal., improving light, establishing fog signal, and constructing keeper's quarters	29,000
Anacapa Island, Cal., light and fog signal	100,000
Barbers Point, Hawaii, improving light	5,000
Hilo, Hawaii, light	35,000
Cape Kumukahi, Hawaii, survey	1,500
Yerba Buena light-house depot, Cal	100,000
Humboldt Bay, Cal., coal shed	5,600
Thirteenth district:	
Kellett Bluff, Wash., light and fog-signal	30,000
Aids to navigation, Alaska	80,000
Partridge Point light-vessel, Wash	60,000
Orford Reef light-vessel, Oreg	150,000
Puget Sound, Wash., aids to navigation	41,600
Tender for Alaska	225,000

DETAILED ESTIMATES FOR GENERAL SERVICE.

SUPPLIES OF LIGHT-HOUSES.

Amount appropriated for fiscal year 1910	$726,000
Amount of estimate for fiscal year 1911	725,748

Itemized statement.

Supplies for annual consumption of light-houses and fog-signals	$162,000
Fuel for watch rooms and fog-signals	41,984
Boats for light stations, including repairs to same	15,350
Furniture for light-stations	5,655
Sundry supplies for light-stations, water, telephone, etc	4,299
Traveling expenses civilian members Light-House Board	232
Technical and professional books and periodicals for the Light-House Board	300
Salaries of clerks in the Light-House Service	66,590
Salaries of other employees in district offices and at light-house depots	37,700
Incidental office and depot expenses, including heat, lighting, telephone, telegraphing, advertising, fuel, at general light-house depot, water, ice, newspaper subscriptions, etc	7,400
Proportion of cost of maintenance of light-house tenders, including salaries of officers and crews, rations of officers and crews, fuel and water, sundry supplies, etc	310,195
Proportion of cost of repairs of light-house tenders	22,650
Mileage and traveling expenses of officers and employees of the Light-House Establishment	8,355
Freight, expressage, cartage, etc	23,465
Proportion of estimated cost of maintenance of one new tender, which will go into commission about July 1, 1910	7,500
Miscellaneous supplies and services furnished by other branches of the Government, including office supplies and printed stationery for district offices, rope manufactured at United States navy-yards, official publications, services to vessels, etc	7,000
Rent of offices, depot quarters, etc	5,073
Total	725,748

REPAIRS AND INCIDENTAL EXPENSES OF LIGHT-HOUSES.

Amount appropriated for fiscal year 1910	$950,000
Amount of estimate for fiscal year 1911	946,790

Itemized statement.

Improving light-stations and aids to navigation, including establishing and repairing daymarks and beacons	$202,000
Repairing and protecting light-houses and buildings connected therewith	210,000
Improvements to grounds connected with same	40,000
Construction of necessary buildings	3,300
Purchase and installation of new illuminating apparatus	12,934
Purchase of materials for use in making general repairs, including segments, tools for lamp shop, depots, etc	20,000
Salaries of clerks in the light-house service	50,800
Salaries of other employees in district offices and at depots, field force, etc	91,927
Incidental office and depot expenses, including heating, lighting, telephones, telegrams, advertising, water, ice, laundry, etc	7,110
Proportion of cost of general maintenance of light-house tenders, including salaries of officers and crews, rations and provisions for officers and crews, fuel and water, sundry supplies, etc	250,000
Proportion of cost of repairs of light-house tenders	24,346
Rent of offices, depot quarters, etc	7,728
Mileage and traveling expenses of officers and employees of the Light-House Establishment	5,000
Freight, expressage, cartage, etc	4,300
Miscellaneous services and supplies furnished by other branches of the Government, including office supplies and printed stationery for district offices, services to vessels, etc	1,200
Estimated cost of maintenance of one new tender, which will go into commission about July 1, 1910	6,000
Contingent cost of unforeseen damage by storm or otherwise	10,145
Total	946,790

SALARIES OF KEEPERS OF LIGHT-HOUSES.

Amount appropriated for fiscal year 1910	$1,250,000
Amount of estimate for fiscal year 1911	1,250,000

Itemized statement.

Salaries of 1,750 keepers, at $600 per year	$1,050,000
Rations for same, at 30 cents per day	191,625
Fuel for same	50,000
Rent of quarters, transportation, etc	1,625
Total	1,293,250

NOTE.—In view of the fact that the estimated amount under this title of appropriation is less than shown, as required under the itemized statement, the Board will take measures to prevent the full number of keepers being employed for the full year.

EXPENSES OF LIGHT-VESSELS.

Amount appropriated for fiscal year 1910	$963,800
Amount of estimate for fiscal year 1911	963,125

Itemized statement.

Salaries of officers of light-vessels	$182,445
Wages of crews of light-vessels	156,410
Rations of officers and crews of light-vessels	104,945
Fuel for light-vessels	49,795
Repairs of light-vessels	130,000
General supplies for light-vessels, including chain, anchors, swivels, shackles, paint, rope, etc	84,200

Sundry supplies for light-vessels, including boats, awnings, sails, furniture, ship chandlery, galley ware, etc	$20,130
Salaries of clerks in the light-house service	19,890
Salaries of other employees in district offices and at light-house depots	23,760
Incidental office and depot expenses, including heat, lighting, telephones, telegrams, advertising, fuel at general light-house depot, water, ice, newspaper subscriptions, etc	1,910
Proportion of cost of general maintenance of light-house tenders, including salaries of officers and crews, rations and provisions for officers and crews, fuel, water, sundry supplies, etc	101,685
Proportion of cost of repairs of light-house tenders	47,160
Mileage and traveling expenses of officers and employees of the Light-House Establishment	950
Estimated cost of maintenance of three new light-vessels, which will go into commission about July 1, 1910	24,000
Proportion of estimated cost of maintenance of one new tender, which will go into commission about July 1, 1910	7,500
Freight, expressage, cartage, etc	4,845
Miscellaneous supplies and services furnished by other branches of the Government, including office supplies and printed stationery for district officers, rope manufactured at United States navy-yards, official publications, services to vessels, etc	3,500
Total	963,125

EXPENSES OF BUOYAGE.

Amount appropriated for fiscal year 1910	$926,000
Amount of estimate for fiscal year 1911	924,450

Itemized statement.

Buoys, chain, sinkers, etc	$125,000
Supplies for use in connection with the above, for annual consumption	40,000
Replacing, maintaining, and repairing buoys	20,000
Acetylene and other lighted buoys	100,000
Gas for gas-lighted buoys	7,000
Carbide for acetylene buoys	10,000
Salaries of clerks in the light-house service	25,785
Salaries of other employees in district offices and at light-house depots	50,565
Incidental office and depot expenses, including heat, lighting, telephones, telegrams, advertising, fuel at general light-house depot, water, ice, newspaper subscriptions, etc	8,585
Proportion of cost of general maintenance of light-house tenders, including salaries of officers and crews, rations and provisions of officers and crews, fuel and water, sundry supplies	420,306
Proportion of cost of repairs of light-house tenders	71,520
Mileage and traveling expenses of officers and employees of the Light-House Establishment	2,355
Freights, expressage, cartage, etc	15,000
Proportion of estimated cost of maintenance of one new tender, which will go into commission about July 1, 1910	7,500
Miscellaneous services and supplies furnished by other branches of the Government, including office supplies, rope manufactured at United State navy-yards, official publications, services to vessels, and printed stationery	18,000
Rents	534
Contracts for buoy service	2,300
Total	924,450

EXPENSES OF FOG SIGNALS.

Amount appropriated for fiscal year 1910	$290,000
Amount of estimate for fiscal year 1911	289,485

Itemized statement.

Establishing and replacing fog-signals	$90,000
Materials for repairing fog-signals	13,200
Construction of fog-signal buildings	10,500
Repairs of fog-signal buildings and dwellings connected with the same	36,000
Rent of land and quarters	1,605
Contingent cost of repairs of unforeseen damage by storm or otherwise	10,208
Submarine fog-signal apparatus	6,000
Salaries of clerks in the light-house service	19,650
Salaries of other employees in district offices and at light-house depots, field force, etc	30,000
Proportion of cost of general maintenance of light-house tenders, including salaries of officers and crews, rations and provisions for officers and crews, fuel and water, sundry supplies, etc	64,000
Proportion of cost of repairs of tenders	3,997
Incidental office expenses, including heat, lighting, telephones, telegrams, advertising, etc	1,575
Mileage and traveling expenses of officers and employees of the Light-House Establishment	2,075
Freight, expressage, cartage, etc	675
Total	289,485

LIGHTING OF RIVERS.

Amount appropriated for fiscal year 1910	$375,000
Amount of estimate for fiscal year 1911	450,375

Itemized statement.

Pay of keepers of post lights	$215,180
Illuminating and other supplies for annual consumption of post lights	20,260
Repairs to post lights and establishing new lights	5,500
Boats for attending post lights	400
Rent of land for sites	600
Salaries of clerks in the Light-House Service	18,355
Salaries of other employees in district offices and at light-house depots	4,680
Incidental office and depot expenses, including heat, lighting, telephones, telegrams, advertising, fuel at general light-house depot, water, ice, newspaper subscriptions	4,390
Proportion of cost of general maintenance of light-house tenders, including salaries of officers and crews, rations and provisions for officers and crews, fuel, water, sundry supplies, etc	146,387
Proportion of cost of repairs to light-house tenders	4,366
Mileage and traveling expenses of officers and employees of the Light-House Establishment	1,662
Freight, expressage, cartage, etc	595
Estimated cost of maintenance of one new tender which will go into commission about July 1, 1910	28,000
Total	450,375

NOTE.—$375,000 has been appropriated under this title for the years 1908, 1909, and 1910, and it has now become imperatively necessary to increase the appropriation to $450,375 if the efficiency of the service is not to be impaired.

NEEBISH CHANNEL, ST. MARYS RIVER, MICHIGAN.

The act approved February 15, 1908, appropriated $26,400 for lighting Neebish Channel, St. Marys River, Michigan. This channel is about 14 miles long, and 26 lights have been established in compliance with the provisions of the act quoted above. A careful investigation of the several methods offered for the care and maintenance of the lights indicates that the most efficient and economical service can be obtained by employing a contractor owning a tug. The lowest and best offer obtained for such service is one of $300 per month for the season of navigation, and the Board recommends that an appropriation of $3,000 be made for that purpose.

REPAIRS TO TENDER AMARANTH.

The tender *Amaranth* has been in continuous service since 1892, and is still in excellent condition. The only criticism which can justly be made concerning this vessel is that the main cargo hold is so far forward that when completely full the vessel's trim is detrimentally altered, and that in order to avoid this result it becomes necessary to carry cargo or ballast in the after hold, which is not economical, owing to the absence of overhead handling appliances. If the conclusions which appear to justify construction by day's labor and the use of government plant are well founded, then large cargoes and frequent trips will continue to be the rule for the *Amaranth*. To enable these cargoes to be conveniently and economically handled the *Amaranth* should be lengthened by cutting her forward of the boilers and inserting a new section of hull 25 or 30 feet long. This will readjust the cargo space of the main hold so that much of the cargo may be carried aft of the midship section, and thus preserve the trim without resort to the uneconomical after-hold space. As altered the *Amaranth* will readily carry, besides the necessary coal, 550 tons of cargo, an increase of 125 tons, all of which may be served by the boom and hoist attached to the foremast. It is estimated that this change, which is urgently recommended, will cost $25,000, and the Board recommends that an appropriation of that amount be made therefor.

FIRE ISLAND, NEW YORK.

Fire Island light is the objective point of all vessels approaching New York Harbor from the eastward after making Nantucket Shoals light-vessel, and it is of the greatest importance to navigation that this light should be of a character equal to that of the best lights in existence elsewhere. It is estimated that this station can be equipped with modern high power illuminating apparatus at a cost of $30,000, and the Board recommends that an appropriation of that amount be made therefor.

BUFFALO BREAKWATER, NORTH END, NEW YORK.

The crib occupied by the buildings of this station was built in 1872. The superstructure is greatly decayed and the fog-signal house situated thereon is settling. The keepers' quarters, from which the tower rises, are leaking and too much decayed for economical repair. The station is an important one, and there is urgent need for the early provision of funds for rebuilding. The Board recommends that an appropriation of $43,200 be made for doing the work specified.

SAND ISLAND LIGHT-STATION, ALABAMA.

This isolated station is greatly subject to erosion by the sea, which in bad weather breaks entirely over the riprap, which is all that is left of Sand Island. In the storm of September 27, 1906, the keepers' dwelling was swept away and the only persons at the station were drowned. A strong reenforcement against the sea is necessary to protect this station, and the Board recommends that an appropriation of $25,000 be made for this purpose.

JOE FLOGGER SHOAL, DELAWARE BAY.

The act approved June 30, 1906, appropriated $40,000 toward the construction of a light and fog-signal station at this point, authorized by the act approved June 20, 1906, at a cost not to exceed $75,000. It has been found by experience with similar structures that the station can not be built for $75,000, and it is therefore recommended that the limit of cost be increased to $105,000 and that $65,000 be appropriated to complete the work.

LIGHT-KEEPERS' DWELLINGS.

The Board recommends that the sum of $75,000 be appropriated for light-keepers' dwellings, appurtenant structures, and sites therefor, at a cost not to exceed the sum of $6,500 at any one light station.

The following-named stations, in addition to those mentioned in the Board's annual report for 1908, should be provided with quarters for the keepers:

- Second district:
  - Nobska Point, Mass.
- Third district:
  - Esopus Island, N. Y.
  - Port San Juan, P. R.
  - San Juan Harbor range, P. R.
- Fourth district:
  - Listons range rear, Del.
- Sixth district:
  - Mayport, Fla.
- Seventh district:
  - Pensacola, Fla.
- Eighth district:
  - South Pass range rear, La.
- Ninth district:
  - Calumet Harbor, Ill.
- Tenth district:
  - Lorain range, Ohio.
  - Buffalo Breakwater North End, N. Y.
- Eleventh district:
  - Minnesota Point, Minn.
  - St. Marys Falls Canal and Vidal Shoals Channel range, Mich.
- Twelfth district:
  - Kauhola, T. H.
  - Napoopoo, T. H.
  - Pauwela, T. H.
  - Lahaina, T. H.
  - Kaunakakai, T. H.
  - Kahala, T. H.
  - Kawaihae, T. H.
  - Lae o Kokole, T. H.
  - Laupahoehoe Point, T. H.
  - Pepeekeo Point, T. H.
  - Paukaa Point, T. H.
  - Diamond Head, T. H.
  - Mahukona, T. H.
  - Cocoanut Point, T. H.
  - Barbers Point, T. H.
- Thirteenth district:
  - Willapa Bay, Wash.

The continuation of the construction of light-keepers' dwellings at stations where there are none, or where the quarters provided are inadequate, is recommended, and the Board submits herewith an estimate of $75,000 for the purpose.

TWO LIGHT-DRAFT TENDERS.

Four light-draft tenders now in commission are unseaworthy, and have deteriorated to such an extent that it is no longer economical to attempt to repair them. These vessels should be replaced at the earliest practicable date by modern vessels capable of performing duty in shallow waters which it is not practicable for the larger deep-draft tenders to perform.

FOUR LIGHT-VESSELS.

The efficiency of the service is seriously jeopardized by the lack of a sufficient number of light-vessels to relieve those on regular stations for annual overhauling and repairs. There are but six seaworthy vessels available for the relief of twenty-one light-vessels marking exposed offshore stations on the Atlantic and Gulf coasts, and at the present time three of these are now on duty in the Fourth district marking stations for indefinite periods. Of these six, one is 57 years old and two others are nearly 20 years old. Light-vessel No. 91, built for relief duty in the Fourth district, has been placed to mark Winter Quarter Shoal, since it was determined upon survey at the League Island Navy-Yard that the station vessel, No. 45, was no longer fit for service on that station. The present bad condition of light-vessels Nos. 44 and 69 is due almost wholly to the fact that it has been necessary to keep these vessels at sea because there were no relief vessels available to take their stations.

DETAILED ESTIMATES FOR LIGHT-HOUSE DISTRICTS.

First District.

Tender for engineer of the First and Second districts.—The tender *Myrtle* was built in 1872, and except when laid up during brief periods for repairs or when detained in port by stress of weather has since that time been actively employed delivering materials at stations and for inspection, etc., in the First and Second districts. The *Myrtle* is 140 feet long and 130 feet between perpendiculars. Her gross tonnage is 348, but her storage capacity has been much reduced by the installation of additional machinery and necessary modern appliances, and by the extension of her deck houses and the lessening of space in the forehold to provide accommodations for the increased number of officers and crew (from 14 to 19), and is inadequate for the demands now made on her.

When the *Myrtle* was built, in 1872, she was well adapted to the needs of the two districts, but in the nearly thirty-seven years she has been in commission these needs have greatly increased, as shown by the following table, giving the number of aids to navigation in 1872 and 1909 in the two districts:

Aids.	First district.			Second district.		
	1872.	1909.	Inc.	1872.	1909.	Inc.
			Per ct.			*Per ct.*
Light-houses and lighted beacons	49	78	63	58	95	64
Fog-signals operated by steam or hot air	8	16	100	2	9	350
Day or unlighted beacons	51	140	174	49	81	65

Scattered along about 500 miles of coast there are over 1,000 structures at light and fog-signal stations, towers, boathouses, oil houses, dwellings, etc., in large part in exposed and isolated locations, to many of which repairs, more or less extensive, and very frequently demanding immediate attention, have to be made every year to maintain the service at the high standard now required of it, besides new stations and work of construction at stations already established, for all of which, during the comparatively short working season, the tender under the engineer should be capable of transporting the necessary materials. Owing to the limited capacity of the *Myrtle* this can not now be always done, and quite often materials have to be delivered at stations by dealers, entailing additional cost.

In the eastern part of the First district coaling facilities are poor, and a tender with coal-carrying capacity for a three-weeks' trip, about twice the capacity of the present tender, would be much more economical and advantageous.

For the prompt, efficient, and economical dispatch of work a new, larger, and more commodious tender is necessary. It is estimated that a suitable tender for this service can be constructed for $200,000, and the Board recommends that an appropriation of that amount be made therefor.

Otter Island, Maine.—Muscle Ridge channel, extending from Whitehead light-station on the south to Owls Head light-station, about 9 miles to the northward, is used by all classes of vessels, except those of deep draft, bound to and from the Penobscot River. It is estimated by the keepers of Owls Head and Whitehead light-stations and Whitehead life-saving station that over 20,000 vessels a year use this channel. Dense fog is frequent here in the summer, when passenger traffic is heaviest. Since the sinking of the steamer *City of Rockland* in 1904 a fog bell has been maintained on Otter Island by private interests.

In view of the importance of this channel and the difficulties of navigation, the Board concurs in the recommendations of the district officers that a light and fog-signal be established on Otter Island, in place of the fog bell now maintained by private interests, at an estimated cost of $19,000.

Little River Head, Maine.—On the westerly side of the entrance to Cutler Harbor, Maine, is about 9 miles from the light-station at Libby Islands on the west, and about 15 miles from West Quoddy Head light-station on the east, at both of which stations there is a powerful steam fog-signal.

The passage between Grand Manan Island and the mainland is the highway through which commerce passes to and from the upper part of the Bay of Fundy, and vessels bound in both directions seek the westerly side, or United States shore. Along the outside of this channel and for some distance eastward of it, beginning at Machias Seal Island, the Canadian government maintains steam fog-signals at distances apart of from 10 to 15 miles. Under some conditions vessels bound east can carry the Libby Islands fog-signal and bound west the West Quoddy Head fog-signal for several miles, but not infrequently during the thick fogs so prevalent in that vicinity they lose these fog-signals when distant from them from 4 to 5 miles or less.

If a powerful fog-signal were established on the high bluff at the westerly entrance to Cutler Harbor, it would be a boon to vessels seeking that place as a harbor of refuge, and of still greater service to vessels bound coastwise, giving them a new point of departure for West Quoddy Head when bound east and for Libby Islands when bound west.

For the foregoing reasons the Board recommends that a steam fog-signal be established on the bluff at the westerly entrance to Cutler Harbor, Maine, at an estimated cost of $30,000.

Clark Ledge, Maine.—This ledge, lying about 300 feet from shore, is situated in a very strong tidal current. In the passage between Clark Ledge and Deer Point, about five-eighths of a mile to the northward of the ledge, there are whirlpools which in spring tides extend two-thirds of the way across the passage between Deer Point and Dog Island, about one-fourth of a mile northeasterly from Clark Ledge. In endeavoring to avoid these whirlpools it is reported that several vessels have been wrecked on Clark Ledge and Dog Island.

The records of the custom-house at Calais show that 142 vessels entered from foreign ports and 187 vessels cleared for foreign ports during the year. The collector of customs at Calais states that a great many vessels arrived at and departed from that port in the coastwise trade during the same period, but such vessels are not required to report at the custom-house, and therefore no accurate statement can be given as to the number.

The Board recommends that a light and fog-signal station be established at Clark Ledge at an estimated cost of $50,000.

Boon Island, Maine.—About 6½ miles off the mainland and about midway between Cape Elizabeth light-station, Maine, and Cape Ann light-station, Massachusetts, lies directly in the course of navigation along that part of the coast. Throughout the year, and especially in summer, many steamers, carrying hundreds of thousands of passengers, besides freight, pass this point, and in thick weather, to avoid Boon Island Ledge, about 2¾ miles east of Boon Island, and the shoal spots between the island and the ledge, take a course which brings them close inside Boon Island.

From Cape Elizabeth light-station to Cape Ann light-station, a distance of 58 miles, there is no fog-signal for vessels on this course. The need of a powerful fog-signal on Boon Island has often been expressed by mariners.

The Board therefore recommends that a fog-signal be established on Boon Island at an estimated cost of $20,000.

SECOND DISTRICT.

Light-house depot, Governors Island, Massachusetts.—The light-house depot in Boston Harbor is now, and has been for more than thirty years, located on Lovells Island, which was acquired by the United States for military purposes, and which, except the lots on which the structures belonging to the Lovells Island light-station stand, is under the custody of the War Department. As this site may be required at any time by the War Department, its tenure by the Light-House Establishment is uncertain, and for several years repairs to the wharf and buildings have therefore been limited to only such as are absolutely necessary to keep the depot in serviceable condition. The Lovells Island site, which is about 6 miles from Boston, is at the edge of the main ship channel in The Narrows, entrance to Boston Harbor, and the wash from the many passing vessels keeps the tender when at the wharf frequently in commotion, and causes damage both to the vessel and to the wharf.

Excluding Castle Island, the most suitable site for a depot in Boston Harbor; excluding also the property known as the "marine-hospital lot," neither of which is available; and excluding the private lots in the upper harbor because of their cost, which varies from $45,000 to $140,000, the best location for the depot is on Governors Island, Boston Harbor, about 2½ miles from the city.

The Board therefore recommends that the light-house depot on Lovells Island, Boston Harbor, be transferred to Governors Island upon a site to be selected with the approval of the Secretary of War, and that Congress authorize the transfer of the site selected from the War Department to the Department of Commerce and Labor.

The Board recommends, further, that an appropriation of $75,000 be made for the construction of buildings, wharves, and other improvements upon the new site.

THIRD DISTRICT.

Hunts Point, New York.—This point of land, situated between Hell Gate and Whitestone, N. Y., extends for a considerable distance into the East River, and is dangerously deceiving to navigators at night and during foggy weather. Vessels are now, in approaching New York, often obliged to remain to the eastward of this point to await the clearing of fog in order that they may make with certainty the turn which they must take there preparatory to running to North Brother Island and through Hell Gate. A turn is made at Hunts Point by vessels going either east or west, and it is the point from which all steamers take their departure.

The Board estimates that a site can be purchased and a suitable structure erected thereon, provided with the necessary light and fog-signal apparatus, at a cost not to exceed $5,000, and so recommends.

Navassa Island survey.—Navassa Island is about 40 miles west of the western promontory of Haiti. It is about a mile in diameter and 250 feet high, with steep bluffs, and deep water close ashore. It lies in the direct route through the Windward Passage to Colon and other Caribbean ports. For ships bound north this is the first landfall after leaving the Isthmus. The currents in this region are strong and irregular. At present steamers often have to stop until it is clear enough to pick up the coast of Haiti. The increased traffic using this route makes the establishment of a light and fog-signal at his point desirable, and the Board therefore recommends that the sum of $3,000 be appropriated to make a survey and an estimate of cost for the establishment of a suitable station.

Staten Island light-house depot, New York.—Blacksmith shop. The present building is of wood and very old and ill-suited to the work required. It is estimated that the proposed extension can be made and the necessary machinery purchased at a cost not exceeding $25,000, and the Board recommends that an appropriation of that amount be made therefor.

Extension of wharves.—The north and south wharves of the present basin need pier extensions as far as the harbor limit will permit, maintaining the present direction of the wharf line. Similar piers now extend out to the line on both sides of the depot—on the north those of the municipality in connection with the city ferry and on the south the piers of the American Cotton Company. It is estimated that these extensions can be made at a cost not exceeding $40,000, and the Board recommends that an appropriation be made therefor.

Floating dry dock.—There are 11 light-vessels and 8 tenders in the Third light-house district, all but 3 being old vessels, requiring frequent repairs and docking to keep them in serviceable condition. Since the establishment at the general depot of a new shop equipped with modern machine tools, all repairs to vessels in the Third district, other than those requiring the use of a dry dock, have been accomplished in a most satisfactory manner by the force employed. If provided with a dry dock, it is estimated that a considerable saving should be made by making the repairs at the depot. It is estimated that a dry dock can be built and equipped, and tools to be used in connection therewith purchased, at a cost of $85,000, and the Board recommends that an appropriation of that amount be made therefor.

Dwellings for keepers at Guantanamo Bay, Cuba.—Neither of the lights at Fisherman Point, nor at Hicacal Beach, can be seen from Windward Point. The lights at Fisherman Point are about 2 miles by a poor road from the Windward Point station and the Hicacal Beach lights about 1½ miles across the bay. Two dwellings should therefore be provided for the three keepers attending the five lights at this station—one at Windward Point for two keepers, and one near the pier at Fisherman Point for the third keeper attending the Fisherman Point and Hicacal Beach range lights and caring for the property at the light-house depot.

The Board therefore recommends that an appropriation of $14,000 be made to provide the keepers of the lights named with suitable quarters.

FOURTH DISTRICT.

Edgmoor light-house depot, Delaware.—The wharves are inadequate and in very poor condition. Additional land should be purchased to permit a 100-foot extension of the water front, in order that the capacity of the basin may be increased and to permit tenders to berth up and down stream between the wharves. The south wharf and the approach to the north wharf should be reconstructed, and extensive repairs to the bulkhead are required. The reconstruction of the south wharf will permit the moving of the house of the Cherry Island range front light to the present position of the light. This light is at present shown from a small frame shed of unsightly appearance, erected because the wharf was not strong enough to support the original house.

The Board recommends that an appropriation of $51,000 be made for the improvement of this depot.

Eagle Point range, New Jersey.—This range is desired to connect the two Horseshoe ranges, at the junction of which a difficult turn exists, which turn is now made as a compass course. The ends of the compass course are marked by cross ranges, but a direct range at this turn will be of great assistance to navigation. The Board recommends that an appropriation of $2,950 be made for this purpose.

Working launch for Fourth light-house district.—The tender *Sunflower* is admirably suited to the heavier work of the district, but her draft is too great for the Delaware River between Torresdale, Pa., and Trenton, N. J., now lighted and buoyed and recently dredged to 7 feet to the head of navigation. In addition, ther are numerous shallow channels in the bay and river which the *Sunflower* can not approach, and which are therefore neglected in the matter of buoyage. The buoyage of the inlets of the New Jersey and Virginia coasts is now attended to by contract, and this course is very unsatisfactory. A light-draft launch could do the work better and maintain the buoys efficiently at little advance in the present cost for unsatisfactory service. Gas buoys frequently remain unlighted for days, becoming extinguished when the *Sunflower* is at one of the limits of the district or engaged in coaling light-vessels. With a small launch within reach for the important but light duty of relighting these buoys the gas-buoy service would be much more efficient than it is at present. In view of these facts, the Board recommends that an appropriation of $35,000 be made for the construction and equipment of a light-draft launch for this district.

FIFTH DISTRICT.

Fort McHenry Channel range, Maryland.—Baltimore is one of the leading shipping ports on the Atlantic seaboard, its exports during the year ended June 30, 1909, amounting to $77,475,293 and its imports to $24,020,333. Congress has recognized its importance by providing liberally for the ship channels leading to its harbor, and the improvement of its approaches by water has resulted in a channel 35 feet in depth throughout, from the capes to the city, and 600 feet wide for the greater part of its length. To render these facilities thoroughly effective adequate lights must be provided. This has been done for the upper channels, except in the case of the channel between Fort Carroll and Baltimore Harbor, known as the Fort McHenry Channel. Since the obstruction of the Lazaretto Point light a few years ago by the erection of buildings along the river front there is no guide to the harbor. The range lights of the Craighill Channel and those of the Brewerton Channel lead the incoming vessel as far as the Fort McHenry Channel, but there she is left without a guiding light to bring her through the fairway into port. This is a serious deficiency and to a considerable extent lessens the advantages accruing from the work done in the improvement of the waterways. Vessels bound to Baltimore, arriving off Annapolis at night, frequently come to anchor there, owing to the lack of a complete system of lights to lead them to the quarantine station, which is opposite the Fort McHenry Channel. The matter of lighting this channel has been agitated for a number of years, the proposition for range lights having been discussed even before the obscuration of the Lazaretto Point light. As the best means of lighting it, it is recommended that a range be established with its front light at or near the intersection of the Brewerton and Fort McHenry channels, which would serve also as a turning point for vessels coming into or going out of the harbor, and with its rear light on the shoal near Rock Point, west side of the Patapsco River. The location of one of the structures in the city of Baltimore is not considered advisable, as its light would be likely to be obscured when most needed by the smoke of the numerous factories and from other sources, and there would also be the liability of confusion with the lights of the city. The estimated cost of the two structures which will be required is $125,000 and the Board recommends that an appropriation of that amount be made for the purpose specified.

Norfolk Harbor, Virginia.—The Board has received numerous petitions for the establishment of an adequate system of lighting in the channels leading to Norfolk Harbor, Virginia. After a very careful consideration of the matter the Board finds that it would be very desirable to establish three sets of range lights to mark the three dredged channel entrances to Norfolk. The Board also desires to establish a gas-lighted buoy to mark the limit of safe navigation for the lighter draft vessels, in order to keep them out of the main ship channel as much as possible and leave more room for the deep-draft commerce.

It is estimated that these aids to navigation can be established for $35,000, and the Board recommends that an appropriation of that amount be made therefor.

SIXTH DISTRICT.

Bloody Point range, Georgia.—The United States engineer at Savannah, Ga., reports that the present lights no longer mark the best water on this portion of the entrance to Savannah River. It is not possible to properly mark the channel by structures located on land at present held by the United States, and the price demanded for new sites at proper points on shore, $10,000, is so exorbitant as not to warrant consideration. It is therefore recommended that the new lights be placed offshore, at an estimated cost of $4,500, and the Board recommends that an appropriation of that amount be made therefor.

The local light-house engineer states that the expenditure of the amount recommended will save $36,000 to the appropriations of the engineer department.

SEVENTH DISTRICT.

Pensacola light-house depot, Florida.—A site for a shed and wharf at the foot of Mason street, Warrington, Fla., has been transferred by the Navy Department to the Light-House Establishment. In order to provide a place to store material and to clean, paint, and store buoys belonging to this locality it is recommended that a platform be built in about 12 feet of water, opposite the site transferred, with the intention in the future to connect this platform by a wharf having an open shed at the inner end thereof. It is estimated that a suitable platform can be built for $4,700, and the Board recommends that an appropriation for that purpose be made.

EIGHTH DISTRICT.

Lighting Mississippi River below New Orleans, La.—The safety of commerce and navigation of the Mississippi River between New Orleans and the mouth of the river requires the establishment and maintenance of twenty-two lights on high 4-pile structures exhibiting lens-lantern lights, to take the place of the inefficient lantern lights now exhibited not far above the water, and hung upon insecure posts. Vessels traverse the river drawing 28 feet of water. The commerce of the river is large and important. From January 1, 1908, to December 31, 1908, 1,316 coastwise and foreign-bound vessels, with a tonnage of 2,780,126, entered the port of New Orleans. The imports during 1908 were valued at $40,616,122 and the exports at $152,866,823, making a total value of $193,482,945 for the year. It is estimated that twenty-two lights can be established at an estimated cost of $24,000, and the Board recommends that an appropriation of that amount be made therefor.

New Orleans light-house depot, Louisiana.—The light-house depot now located at Port Eads, La., should be moved to New Orleans, La., or its vicinity. The depot should be located at the point of distribution of the district, and at a point conveniently accessible to the headquarters of the district at New Orleans. Moreover, Port Eads is on the South Pass of the Mississippi River, and this pass will be of little use after the completion of Southwest Pass. It is estimated that a site can be purchased and a wharf and depot buildings erected at a cost of $27,000, and the Board recommends that an appropriation of that amount be made therefor.

Ninth District.

Lansing Shoal, Lake Michigan.—Lansing Shoal is located northeasterly from Squaw Island about 4⅝ miles, and bounds on the northward the narrow passage through which pass east or west bound vessels between the Straits of Mackinac and the northern part of Lake Michigan. The shoals consist of a number of detached shallow spots, with depths less than 20 feet; the shallowest water shown on the charts is 17 feet, but it is probable that there are spots shoaler than this. The present aids to navigation consist of two fixed red lens-lantern lights and a steam fog-signal, both upon a light-vessel moored in 35 feet of water.

The number of large vessels passing by Lansing Shoal is constantly increasing. In the late fall and early spring, when navigation into Lake Superior is closed on account of ice, there are periods when vessels may still enter Lake Michigan from the lower lakes, and there is a considerable augmentation of coal shipments to Lake Michigan during these periods. It is impossible to leave on station the light-vessel at Lansing Shoal until the Straits of Mackinac are closed by ice, and in the spring it is impracticable to have the vessel back on station before the rush of vessels to Lake Michigan begins.

On account of the great exposure of Lansing Shoal and the depth of water thereon and the difficulty of construction, the Board recommends that an appropriation of $250,000 be made for the construction of this station.

North Manitou light-vessel, Lake Michigan.—In recent years a shoal has developed southeast of North Manitou Island. With the exception of this shoal, this is the safest passage through Lake Michigan and is largely used. Owing to the close proximity of Pyramid Point to the eastward it is impracticable for masters to accurately locate the position of their vessels in thick weather, and a light-vessel on the easterly end of Southeast Shoal would aid them in passing through this narrow channel in foggy weather.

The Board therefore recommends that an appropriation of $50,000 be made for the construction of a vessel to mark this shoal.

Barge for St. Joseph light-house depot, Michigan.—A scow or lighter is indispensable at this station, owing to the fact that all railroad and steamboat docks at St. Joseph are situated on the opposite side of the harbor from the supply depot, necessitating the transportation of all supplies and material to and from the docks by water. The demand for the services of such a vessel at this depot is practically continuous. In addition to its use for transportation purposes it is always required for use in connection with the construction and handling of cement sinkers. An exact duplicate of the scow asked for, constructed of wood, was used constantly from 1895 to 1907, when it was condemned as being no longer serviceable. It is estimated that such a vessel can be built for $7,000, and the Board recommends that an appropriation of that amount be made therefor.

TENTH DISTRICT.

Lorain, Ohio.—A light-house should be erected on the new west breakwater pierhead, and a new range light near the outer end of the west pier. This project of lighting is but a rearrangement of the existing lights made necessary by the building of breakwaters at the harbor entrance. The west breakwater has been practically completed for its entire length of 1,800 feet; the east breakwater and its pierhead have not been completed. The west breakwater pierhead was completed in 1907 and will probably have completed its settlement and be ready for the light by the time the necessary appropriation can be made available for the work. It is estimated that this station can be established for $19,800, and the Board recommends that an appropriation of that amount be made therefor.

Huron range, Ohio.—Huron is rapidly becoming a harbor of importance, and the commerce of the port is sufficiently large to warrant the establishment of efficient lights for all vessels desiring to use the harbor.

It is recommended that the present light be moved and established on the new pierhead at the outer end of the west pier when the pier extension has been completed, and that a light be established on the shore south of the pierhead light to form a range to mark the channel across the bar at the harbor entrance. It is estimated that the above-described work can be done for $3,800, and the Board recommends that an appropriation of that amount be made therefor.

ELEVENTH DISTRICT.

Gull Island light-station, Lake Superior.—The act of May 27, 1908, appropriated $2,000 to make a survey and estimate the cost and report upon the feasibility and need of establishing a light and fog-signal station upon Gull Island, or the easterly end of Michigan Island, Apostle Group.

The survey has been completed, and upon consideration of the data furnished the conclusion has been reached that the light should be established on Michigan Island and the fog-signal on Gull Island, and the Board recommends that an appropriation of $150,000 be made for the construction of a light and fog-signal station at the points mentioned.

Duluth range, Minnesota.—At this station there is a single dwelling, and three keepers are employed, the two assistants living in rented houses, for which they pay $10 and $15 per month. It is estimated that a site can be purchased and a double dwelling erected thereon for $10,000, and the Board recommends that an appropriation of that amount be made therefor.

Detroit light-house depot, Michigan.—The need of an oil house for the storage of the supply of mineral oil for the district before delivery to light-stations is imperative. The present storage room in the basement of the storehouse is insufficient and the danger of loss by fire considerably increased. It is estimated that a suitable fireproof building can be constructed for $3,500, and the Board recommends that an appropriation of that amount be made therefor.

TWELFTH DISTRICT.

Army Point, California.—Under date of January 26, 1907, the American Association of Masters, Mates, and Pilots submitted a petition for a light and fog-signal at Army Point, Suisun Bay, California. Practically all the commerce of the Sacramento and San Joaquin rivers passes Army Point. The establishment of a light and fog-signal at this point would prove a valuable aid to navigation and the Board recommends that an appropriation of $10,000 be made therefor.

Santa Cruz light-station, California.—This station should be equipped with a modern lens and a fog-signal. It is estimated that this work can be done and two dwellings provided for the additional keepers required at a cost of $29,000, and the Board recommends that an appropriation be made therefor.

Anacapa Island light-station, California.—Anacapa Island is one of the most difficult points on the southern California coast to pass in foggy or otherwise thick weather and is regarded as the most important point for a light-station on any of the channel islands. It is estimated that a light and fog-signal station can be established here for $100,000, and the Board recommends that an appropriation of that amount be made therefor.

Barbers Point, T. H.—The present fourth-order fixed white light marking this point should be replaced by a fourth-order flashing red light, thus increasing its range and intensity and making it more clearly distinguishable from the plantation lights in the vicinity. The Board estimates that this change can be made at a cost of $5,000, and recommends that an appropriation of that amount be made therefor.

Hilo, T. H.—Hilo is the second port of importance in the Hawaiian Islands. Upon completion of the new breakwater now underway the importance of this port will be greatly increased. The present small fixed red lens-lantern light, located on the old and dilapidated government wharf at the foot of Waianuenue street is entirely inadequate for the requirements of the growing trade of Hilo and should be replaced by a more powerful light. It is recommended that a fourth-order flashing light be established at some point on the shore of Hilo Bay. It is estimated that such a light can be established at a cost not to exceed $35,000, and the Board recommends that an appropriation of that amount be made therefor.

Cape Kumukahi, T. H.—Like other islands of this group Hawaii is of volcanic origin and is still the seat of considerable volcanic activity. An examination of the locality where it is proposed to construct a light-station indicates that further study and investigation of conditions should be made before the character and cost of a station can be determined. The Board therefore recommends that an appropriation of $1,500 be made for a survey, estimate of cost, and report upon the feasibility and need of establishing a light and fog-signal station on Cape Kumukahi, Island of Hawaii.

Yerba Buena light-house depot, California.—This is the only depot in the Twelfth district. It is too small to meet the present requirements, and additional area should be provided for building additions to the wharf, constructing retaining walls, and filling in behind with earth taken from the hillside in the rear. The wharf should have headroom for two tenders and the relief light-vessel, and necessary storehouses, shops, and dwellings should be added. The Board therefore recommends that an appropriation of $100,000 be made for enlarging and equipping this depot, including the construction of the necessary buildings.

Humboldt Bay coal shed, California.—Owing to the difficulty of coaling Blunts Reef light-vessel No. 83, where it often happens that the tender *Madrono* is from ten days to two weeks coaling this vessel, the Board recommends that a coal shed be built on the light-house wharf at Humboldt Bay, having a capacity of about 500 tons of coal. This will allow the light-vessel to steam to Humboldt Bay, coal, and return to her station in about two days, the station in the meantime being marked by a relief light-vessel. A supply of coal at this point would also be a great convenience to tenders when cruising to the northward. It is estimated that a suitable structure can be built for $5,600, and it is recommended that an appropriation of that amount be made therefor.

THIRTEENTH DISTRICT.

Kellett Bluff, Washington.—All commerce between Puget Sound and Alaska and between Cape Flattery and points in the Gulf of Georgia will be benefited by the establishment of a light and fog-signal at this point. Several large vessels have been ashore in the vicinity of Kellett Bluff, and casualties have been avoided merely through fortunate circumstances attending the grounding of the vessels. The Board therefore recommends that an appropriation of $30,000 be made for the establishment of a light and fog-signal at this important point.

Alaska, aids to navigation.—With the appropriation of $60,000 made by the act of March 4, 1909, the more important aids in Wrangell Strait, the principal link in the Inside Passage, now very imperfectly provided with aids, will be installed, and an acetylene lighting outfit provided for Hog Rocks.

The establishment of a large number of additional aids have been recommended, among which may be mentioned those at the following-named points:

Spire Island Reef.
Lewis Point.
Ship Island.
Above Vexation Point, Wrangell Strait.
Ledge above Blunt Point, Wrangell Strait.
Portland Island.
Rocky Point.
West end Busby Island.
East end Smith Island.
West side Chicken Island.
Northwest end Elrington Island.
West Clump, Tongass Narrows.
Channel Island.
Danger Point Ledge, Wrangell Strait.
South end Rock Point Ledge, Wrangell Strait.
Midway Islands.
Battery Point.
Porpoise Rocks.
Middle Rock, Valdez Narrows.
Seal Island.
Island west of Bettles Island.
South end Channel Islands, Cordova.

While all the aids recommended are needed to-day, and many more will be requested during the coming year, as these waters cover several thousand miles of unlighted channels and seacoast, the above are of prime importance, being located at essential points along the principal commercial routes.

The estimates submitted aggregate about $75,000, but they are necessarily very imperfect owing to the conditions involved, viz, distance from base of supplies and incomplete data in regard to the various sites. It is believed, however, a slight margin in excess of the estimates should be allowed to meet unforeseen contingencies, and the Board therefore recommends that an appropriation of $80,000 be made for continuing the establishment of aids to navigation in Alaskan waters.

Partridge Point light-vessel, Washington.—From Partridge Point vessels bound to Anacortes and Bellingham Bay ports must take a departure, as there is a 15-mile run to Burrows Island on which is located a fog-signal. In place of the clapper-bell buoy marking that point, the Board recommends that a small nonseagoing light-vessel, equipped with a fog-signal, be established about 1 mile to the westward of Point Partridge. This aid would give vessels a ready point of departure, guiding them clear of Partridge Bank and clear of the shoals surrounding Minor Island. It is estimated that such a vessel can be built for $60,000, and the Board recommends that an appropriation of that amount be made therefor.

Orford Reef light-vessel, Oregon.—The group of rocks and islands known as Orford Reef lies 5 miles off Cape Blanco and extends 2½ miles north and south and 1½ miles east and west. It includes no less than 47 dangers, many of which arise abruptly, so that a vessel may be in great danger while in 30 fathoms of water. Fogs are very prevalent in this region, and the currents are strong and irregular. A strong inshore eddy or countercurrent sets to the northward and eastward off Cape Blanco, and often carries vessels into hazardous positions. As the reef lies off the most westerly cape on the coast, vessels make it a turning point in fine weather and often find themselves too close in during fogs. All these conditions render this obstacle a serious danger to navigation.

The most outlying danger, Fox Rock, is a small rock about 10 feet high and about 10 feet across at its greatest dimension above water, and is almost constantly swept by the waves, rendering impracticable the establishment and maintenance of a light and fog-signal upon it.

After considering the practical difficulties attending the establishment and maintenance of a fixed aid in this locality, the Board is of the opinion that the only satisfactory aid would be a first-class, full-powered light-vessel moored off Orford Reef, about three-fourths mile west (true) of Fox Rock, in about 44 fathoms of water, and therefore recommends that an appropriation of $150,000 be made for the construction and establishment of such an aid.

Puget Sound aids to navigation.—The attention of the Light-House Board has been invited by the Navy Department to the paucity of aids to navigation in Puget Sound, Washington, developed by the inquiry into the circumstances connected with the grounding of the U. S. S. *Colorado* near Lip Lip Point on August 15, 1908.

A complete examination and thorough study of existing conditions by the officers of the Light-House Establishment, supplemented by the testimony of pilots and others navigating the waters of Puget Sound, have shown that the navigation of this sound is considered difficult for four reasons: (1) The great depth of water extending for the most part within a few yards of the shore, making it difficult to find an anchorage in thick weather; (2) strong, irregular, and variable currents; (3) thick fogs nearly all the year; (4) smoke from forest fires during the late summer and autumn months.

After careful consideration of all the conditions involved, the Board recommends that an appropriation of $41,600 be made for the establishment of lights and fog-signals at the following-named points: Point Herron, Point Glover, Apple Con Point, Bush Point, Marrowstone Point, and Slip Point.

Tender for Alaska.—Efforts are being made to maintain the Alaskan service with tenders from the Thirteenth district, but with such unsatisfactory results that the Board is compelled to recommend that an appropriation of $225,000 be made to provide a suitable seagoing tender to be devoted to both construction and maintenance duty in the light and buoy service in Alaskan waters, and especially of such cargo capacity as to enable it to carry light-house supplies and material from the United States.

Respectfully submitted.

A. Marix,
Rear-Admiral, U. S. Navy, Chairman.
W. B. Caperton,
Captain, U. S. Navy, Naval Secretary.
Thos. L. Casey,
Colonel, Corps of Engineers, U. S. Army, Engineer Secretary.

To Hon. Charles Nagel,
Secretary of Commerce and Labor.

APPENDIXES.

APPENDIX 1.

REPORT OF INSPECTION OF CERTAIN LIGHT-HOUSE ESTABLISHMENTS IN EUROPE.

LETTER OF TRANSMITTAL.

DEPARTMENT OF COMMERCE AND LABOR,
OFFICE OF THE LIGHT-HOUSE BOARD,
Washington, October 16, 1909.

SIR: We have the honor to report that we sailed from New York on the North German Lloyd steamer *Kronprinz Wilhelm* on June 8, 1909, arriving at Plymouth, England, and London, on June 14.

Before starting it was our intention to visit England, France, Holland, Denmark, Sweden, Norway, and Germany; and in accordance with the instructions of the Board we first visited the capital of each country, looked into the organization of the light-house service, and arranged for such trips of inspection as would be advisable. Subsequently it was decided not to visit Norway, on account of its similarity to Sweden, but to visit Scotland, upon the suggestion of the chairman of the English light-house board. In each country every courtesy was shown us and every facility for inspection placed at our disposal. Several trips were made in light-house tenders, and other trips were made by either rail, motor, or carriage.

It was decided upon as absolutely necessary to limit our investigations to such modern aids as were not known in the United States. The limited time and the great space to be covered rendered this necessary, besides the uselessness of looking into matters with which we were acquainted. Naturally, during our travels, we did have to examine and inspect matters with which we were acquainted, but only such as was new to us will be reported upon.

After having visited the continental countries named, we returned to England, where several trips for us were laid out by the light-house board of that country; and also visited Scotland, which, as stated heretofore, was decided upon after the first itinerary had been laid out.

We sailed from Southampton on August 18, in the *Kaiser Wilhelm II*, and arrived in New York August 24.

During conversations with both captains of the steamers in which we crossed, the only request they made in regard to any changes of lights on our coast was that the intensity of Shinnecock light be increased; and they stated that they considered this more important than the increase in the intensity of Fire Island light. Otherwise they seemed well satisfied with all aids on this side which come under their knowledge.

Very respectfully,

A. MARIX,
Rear-Admiral, U. S. Navy, Chairman Light-House Board.
A. V. CONOVER,
Superintendent Light-House Service.

To Hon. CHARLES NAGEL,
Secretary of Commerce and Labor.

REPORT OF INSPECTION OF CERTAIN LIGHT-HOUSE ESTABLISHMENTS IN EUROPE.

ORGANIZATION OF LIGHT-HOUSE SERVICE.

ENGLAND.

The light-house service of England is controlled by a board composed of 13 "Elder Brethren." When a vacancy occurs one of the "Younger Brethren" is elected by the "Elder Brethren" to fill it. The position is for life, and the salary is £500 per annum. Any commanding officer of the navy or master of the merchant marine is eligible for election as one of the "Younger Brethren" by the "Elder Brethren." There is no salary attached to the position, but they are then eligible for election as one of the "Elder Brethren."

The board is responsible only to the Board of Trade, which votes the funds. Similar boards exist in Scotland and Ireland, which have similar independent powers, except as to the establishment of new aids, which must first be approved by the English board.

This board is divided into working committees. The engineer in chief, not one of the board, has charge of all engineering and architectural work, and also of the different systems of lighting. He has an assistant. He, as well as his assistant, are civilians. He attends to all construction work and extensive repairs, but has nothing to do with the personnel, except those whom he employs for his work, nor with tenders, floating aids, or the establishment of new aids.

England is divided into 7 light-house districts, each one in charge of a superintendent. The superintendents are persons who enter the service as apprentices at the age of 13 and have worked up to the position of master on board of a steam tender. They are selected for the position of superintendent by the "Elder Brethren." A superintendent has control of his district and its employees. He also attends to minor repairs by bids sent out, though larger repairs are reported at headquarters and attended to there. He has charge of all the tenders in his district. He must inspect all stations and light-vessels at least once a month.

Light-keepers are appointed for life. They enter the service between the ages of 19 and 28, and their salaries are regulated according to length of service, and not according to station. Light-keepers, as well as the other employees of the light-house service, are pensioned when too old to perform duty.

There is a regular light-ship service, also for life, and the officers are selected from the men. The men enter between the ages of 19 and 28, but must have been at sea. They are then eligible to work up to lamplighter, mate, and master. These men are pensioned when too old to serve.

SCOTLAND.

The light-house board in Scotland is composed of 24 members, and the board is to a certain extent under the supervision of the English light-house board. Eighteen of these members are appointed for life and are all lawyers, being men who either are or have been judges of seacoast districts. The other six members are mayors of the six principal seaports of Scotland, and hold the positions on the light-house board during their terms as mayors. A new chairman is selected every six months, and as a rule the vice-chairman succeeds to the chairmanship. Meetings are held every Wednesday, and the subjects to be discussed are sent to the members beforehand, and no other subjects are allowed to come up for discussion.

The secretary of the light-house board is salaried, and is really the executive officer of the service. He has under him a superintendent and an engineer in chief. The superintendent, who is also salaried, and has held his present position for nine years, is in charge of the maintenance of the light-house service and the inspections, and he has under him three superintendents, one for each district, who are also salaried and perform the duties that our inspectors perform in this country.

The engineer in chief, who does the work of the engineer and architect, is not salaried, but works on a commission and is allowed to do other work. This is the only country where this course occurs, and would be very objectionable, as a person is likely to neglect public work for private emoluments, were it not for the fact that he is a "Stevenson," and his family have held this position for generations.

All light-keepers, officers, and men of the light-vessels and tenders are pensioned at the age of 60, according to the length of service.

FRANCE.

The light-house service of France is under the minister of public works, posts, and telegraph.

The department of public works, etc., is subdivided into bureaus, each with a civilian chief of bureau, who has control, under the minister of the department, of all the affairs in and the administration of his bureau.

The several bureaus are as follows:

First division: Service of public works.
Second division: Service of roads, navigation, and mines.
Third division: Service of navigation.
Fourth division: Service of maritime ports, light-houses, and buoys.

The advisory light-house board is composed of one vice-admiral of the navy, the engineer in chief of mines, two rear-admirals of the navy, one naval constructor of high rank, and a director of hydrography, four inspector-generals, and two engineers in chief from the civilian corps of engineers.

The seacoast is divided into light-house districts, with an engineer of the civilian corps of engineers in charge. This officer has charge of the construction work, and administration and maintenance of the affairs of his district, and is responsible for the personnel and its efficiency.

All employees are appointed by the minister of public works, posts, and telegraphs upon the recommendation of the chief of bureau.

HOLLAND.

The light-house service of Holland is under the control of the navy department. A naval officer, on the reserve list, with the rank of captain, is in charge, and receives extra compensation, and each one of the five districts has a naval officer with the rank of lieutenant-commander as superintendent. When detailed for this duty they remain there and have no more naval service, except in case of war.

On the staff of the board are an architect and an engineer, both civilians.

DENMARK.

The light-house service of Denmark is under the control of a retired naval officer with the rank of captain, who holds the position permanently and is called the "director." He has under him an architect, assistant architect, engineer, and assistant engineer, all civilians.

There are two classes of light-keepers, one for large stations and one for small stations. The keepers and assistant keepers, not over 30 years of age, are appointed by the secretary of the navy, and receive an increase of pay every four years and are pensioned. Laborer keepers are detailed from old seamen of light-vessels.

The masters and mates of light-vessels are appointed from the merchant service, or from naval men who can pass the examination.

One large tender is commanded by a naval officer with the rank of commander, who is detailed for three or four years. He has generally two younger naval officers on board with him to assist and to learn. He is the inspector of the whole coast. There are two smaller tenders for carrying supplies and doing lighted-buoy work.

The inspector has charge of the personnel, although the keepers are appointed by the navy department. The laborer keepers are detailed by the director.

The buoy service (not lighted) is looked after by a naval officer detailed for that purpose, with a younger officer as assistant. There is only one district, but two coasts, and therefore there must be assistants.

SWEDEN.

The light-house service of Sweden is under the control of a board, and is independent of any department, except in time of war, when it is under the navy department.

The board is composed of five members. The chairman is detailed from the rear-admirals of the navy when a vacancy occurs, and he then goes on the reserve list. Three of the other members of the board are the engineer in chief, the president of the Pilots' Association, and a naval constructor, all civilians, but entitled to wear the uniform similar to that of a commander in the navy after appointment. When the chairman is absent one of these three presides, according to length of service in the light-house establishment. The engineer in chief has charge of all construction work, machinery, and lighting apparatus. The fifth member is a commander in the navy, on the active list, detailed from time to time, and he only attends meetings of the board when signal-station matters are under consideration. The light-house keepers also attend to the signal stations.

There are six districts, each under the charge of an inspector, who is a naval officer on the retired list. When a vacancy occurs a commander of the navy is detailed and placed on the retired list at once with an increase of pay. He also commands the principal signal stations in his district. All assistant keepers are appointed by the inspectors. They are taken from the navy and merchant-marine service only. Keepers are appointed by the board upon recommendation of the inspector. The light-house service attends to all buoys, lighted and unlighted.

GERMANY.

The Imperial Board has supreme control over the light-house service. This board lays down certain general laws and sees them enforced. It is also consulted in regard to new aids to navigation. The head of this board is a rear-admiral in the navy on the active list, who has on his staff a civilian architect and a civilian engineer. There are also seven inspectors, who are officers on the reserve list of the navy. They have nothing to do with the personnel and maintenance, but see that all general rules and decisions are carried out. The whole coast and the rivers are divided into seven districts, and each district is administered by its own civilian officials. Prussia is the principal one, and is again divided into eight subdistricts. Hamburg and Bremen are two others. The department of public works in each directs the work of construction upon the request of the light-house officials. The harbor master looks out for all the buoys and inner lights. The other lights are maintained under the supervision of the engineer (baurat) of the district. In the Elbe, the dividing line is at Cuxhaven; in the Weser, at Bremerhaven.

NOTE ON ORGANIZATION.

From the above it will be seen that, although the light-house services of the British Isles are controlled by boards, there is a head to the light-house service in each of the continental countries; and that in most cases this official is a naval officer of high rank, placed on the reserve list, so as to permit him to hold the office for a prolonged period.

In France the head of the light-house service is a civilian, but the light-house board, which is advisory, has a vice-admiral of the navy at its head. In all European countries the official next in importance in the light-house service is the engineer in chief, who carries on all experiments and has charge of all the illuminating apparatus and machinery. He is really the person responsible for keeping the light-house service up-to-date. In some of the countries he is also the architect, and in all countries he is a civilian. This position has been considered so important in England that the engineer in chief of the Trinity House was knighted during our visit to Europe.

We have neither of these officials in our light-house service. Although the chairman of the board has control in the office he is not the absolute head of the light-house service.

The engineer secretary does not carry on the duties of the engineer in chief in Europe, and the engineer officer of the Third light-house district, in our Light-House Establishment, who does perform a part of these duties can not do so satisfactorily, owing to his other work in the Third district and at the station at Tompkinsville.

NOTE ON PERSONNEL.

The personnel of all the foreign light-house services visited was notably excellent, due to the fact that great care is exercised in the selection of candidates for appointment in the service; that careful instruction for the proper performance of the duties is given each; that promotion is for merit; that the lives of the employees are insured for the benefit of their families; and they are allowed medical attendance if ill.

At stations where there are no schooling facilities the keepers are assisted in educating their children by $50 per annum toward the expense of boarding out each child between the ages of 5 and 15.

They are furnished with dwellings, furniture, fuel, and in some cases, rations; and, finally, when superannuated, they are retired for life with a percentage of the pay received when in the service.

There is seldom a vacancy in the service except by death or retirement, and there is pride in evidence in all parts of the profession.

LIGHT-HOUSES.

ENGLAND.

We were impressed with the excellence of the light-house structures of this country. The greatest care is exercised, and expense is a secondary consideration.

The electric light is not in general use in the English service on account of the expense in operating it. The oil-vapor lamp, an invention of Sir Thomas Matthews, engineer in chief of the Trinity House, is almost exclusively used, and oil vapor, after exhaustive trials and tests, is considered the most reliable illuminant. Its power of illumination is more than ample for seacoast lights and more economical for maintaining than any other light. The lamp is so constructed that one or a cluster of three mantles can be used. The mantles are all purchased under specifications and inspected with great care before acceptance.

The English service has a continuous-burning carbon-burner lamp in use for beacon lights. This lamp is oil burning, with a carbon wick. The oil cistern containing the supply of oil is placed at a distance from the flame, therefore there is no danger of the supply of oil becoming heated and taking fire. There is an automatic mercury valve for cutting off oil supply in case the chimney shall break.

In this service, as well as the light-house services of other countries visited, there are in general use shutters or blinds that are closed or opened by means of a clockwork similar to that used for revolving lenses, and in some cases by the framework of the table on which the lens rests. A fixed lens will thus make an occulting light of any desired characteristic, or a fixed and occulting light, at a less cost than for a flash-light lens. This shutter-flash panel is used with excellent results and is generally used to cover shoal water.

SCOTLAND.

The light-houses of Scotland are on the same general plan as those in England, as is also the illuminating apparatus. They have, after careful comparative tests, adopted a different oil-vapor lamp, which is also satisfactory (one lamp was obtained for experimental purposes), and its efficiency is believed to be the best of the many different oil-vapor lamps inspected and used in other light-house services.

In the Scottish service they have acetylene lights—flashing and fixed—for beacon lights, the gas being generated at the station and the carbide-to-water feed systems used. These lights are practically unattended; the coast guard service is available for lighting and extinguishing them. These lights have given satisfactory service. The service for a light is one charge for the generator every thirty days. Bat-tail burners are used.

FRANCE.

All the important lights in France are electric, the generators being belt driven by steam or oil engines, each electric-light station being equipped with two arc lamps, a large lamp used during the bad weather season, and a smaller lamp during good weather.

The latest in lenses for flashing lights are twin lenses (two lights) placed close together on the same revolving table. The first cost is less than one large light and greater candle power is obtained. The two beams appear as one to those seeing the light. Six persons are required to tend the machinery and the lights.

An oil-vapor light of French design, with mantle (the largest used being 85 millimeters), is also used in the French service.

Acetylene lights with mantles are also in use, the gas being generated at the stations. The carbide-to-water feed is used, but as the cost of the acetylene is more than the oil-vapor light its use as a substitute for oil vapor is not considered at the present time.

At some of the electric stations the current is obtained from the city power house and the lens revolved by an electric motor.

The "Nernst" electric lamp, of special design, is used, and for the power expended the candlepower obtained from this small lamp is remarkable. One of these lamps was obtained for experimental purposes at the general light-house depot.

HOLLAND.

The service of Holland is practically the same as in France. Shutters are used to show occulting lights. "Blau" gas-lighted beacons are used in this country with good results. This is a German invention, and it will be described under "Germany."

DENMARK.

Oil-vapor lamps with mantles are used as a rule. Acetylene generated at stations, carbide-to-water feed, is also in use to some extent. Compressed acetylene (Swedish system) is used at small, unwatched lights and is considered very satisfactory. Shutters operated by clockwork are arranged to show fixed white light in channel and occulting light out of channel. "Blau" gas is used at beacon lights and is satisfactory. Lenses are obtained from Germany and France, the former being preferred.

SWEDEN.

The oil-vapor light is used in Sweden to some extent, but most of the lights are acetylene gas, compressed in acetone in transportable steel cylinders. The "Delane" patent flasher and sun valve are used in connection with all acetylene lights, and, as these lights tend themselves, no keeper is required. They are being installed at all stations, except the seacoast lights where fog-signals are located.

This system of lighting has been tried with success in Sweden for three years, and has recently been presented to the light-house authorities of the United States for their consideration. The system is well known to us. It is considered most efficient by the Swedish light-house authorities, and is without doubt an excellent light for unwatched light-houses. It is also economical, both for the first cost of installation and the cost of maintenance. In the Swedish service a second-order light, the lens consisting only of dioptric elements, supplied with a 300-candlepower burner, consuming 6 cubic feet of acetylene gas per hour, showing a fixed light delivering 4,000 candles with an optical range of about 17 nautical miles in clear weather, with the assistance of the "Delane" sun valve, costs $76 per annum. Acetylene gas costs about 1½ cents per cubic foot, which is the same as in the United States. The smaller flash lights (sun-valve beacon lights), with a 300-millimeter lens, 1-foot burner, delivering 360 candlepower, costs $10 per annum maintenance.

Light-house lenses in the Swedish service are of both the French and German manufacture, the latter being considered the better, and all new lenses that are bought are of the German make and pattern.

GERMANY.

In Germany the most modern and complete appointments in electric lighting were found, with the result that more lighting power is produced for the expense than in any other service. This is due in a great measure to their having at disposal the experienced forces and the great plants of the Julius Pintsch Company, situated at Fürstenwalde and Berlin, and the two lens manufacturers, William Wenle, located at Goslar a/H, and Nitsche & Gwuther, at Rathenow.

In this light-house service we found the following contrivances of great value:

Electric light.
Differential arc lamp.
Double electric lamps.
Gas illuminants:
  Blau gas beacons, without keepers.
  Benoit gas beacons, without keepers.
  Flashing gas beacons, without keepers.
Incandescent oil-vapor burners.
Lenses.
Mangin mirror-reflector lens.
The "Delane" patent sun valve.
Occulting shutters or blinds.
Range lights for river lighting.
Lens testing.

A brief description of these is considered valuable.

Electric light.—The electric light at Hörnum is the most modern light of its kind in Germany. It is a tall cast-steel tower, from which are shown two electric lights, with a third light shown from a secondary structure about a half mile distant. There is a stone two-story double dwelling for the keepers close to the main tower. Inside the main tower there are installed on the ground floor duplicate 12-horsepower Diesel engines (described under "fog-signals") direct connected to duplicate generators and telltale switchboards, with all the necessary electrical instruments. This generating plant is used to charge 100 storage batteries on the next floor above, wired in sets of 50 to 290 amperes, 90 volts, which is accomplished by one of the generating sets in six hours, and this gives enough electrical power to operate the three electric lights from ten to eleven hours. This work is performed by the keepers in the daytime (only two keepers at this station), and by the simple operation of throwing a switch the lights are put into operation for the night.

In addition there is a separate electric-motor pump, driven by the same storage batteries, for the purpose of pumping water to a tank at the top of the tower, installed as a protection in the event of fire, and for cleaning purposes, so that the keepers do not have to carry water up to the top of this high tower; also to supply another tank used for circulating water, which runs from there to the engines by gravity for cooling purposes, and to still another tank in the keeper's dwelling, to be used in connection with the hot-water heating system used in cold weather to heat the keeper's dwelling and the light-house tower. On the floor next above the storage-battery room is a large storeroom and workshop where all supplies and tools for repair work are kept. The floor above this is fitted up as a bedroom, and the floor above is the watch room with a telltale switchboard, telephone to engine room and keeper's dwelling, and an automatic device by which the generating set in the tower on the ground floor can be stopped either from the watch room or battery room. There is also an automatic time-clock register, which the keeper on watch is obliged to sign frequently during the time he is on watch. Next above the watch room is the secondary light shown from the main tower, the rear light of a range, the front light being about one-half mile distant. The front and rear lights are 150-candlepower incandescent electric lamps, each with two lamps, the one in service to the front and the second directly behind (not in service). In case of an accident breaking the service lamp, the current automatically (by the short circuit caused by the broken lamp) turns the table on which the two lamps are mounted and throws the spare one into focus and lights it. In the same tower above this (rear) light is shown the main light, a quickly revolving flashing apparatus, with a reflecting lens of 250-millimeter focal distance, made for the new differential arc lamp. The lens (1,180 millimeters in diameter) consists of a middle part, 3 dioptric and 7 catadioptric rings, one-twelfth of the two outside catadioptric rings falls out of the lantern below. Before the lens a disperser (1,200 millimeters in diameter) is arranged, whose individual cylindrical lens bars result in a dispersion of 10.5 degrees. The reflecting lens as well as the disperser are framed in red brass. The reflecting lens is obscured behind by a plate shade with heat outlets. To protect the voltaic arc of the arc lamp against the currents of air resulting from the rotation of the apparatus, a plate covering is provided from the framing ring of the reflecting lens to that of the disperser, and arranged in a way that it can be taken off easily as far as may be necessary for the cleaning of the glasses. Besides this, the disperser can be removed laterally so that the lens may be cleaned easily.

In order to eclipse the light and to produce a desired characteristic of the apparatus a frame with blinds or shutters is arranged before the disperser, which is placed at such a distance from the disperser as to be at the angles of the crossing rays of light. In order to shut out the light these blinds are closed and opened by a mechanism arranged under the table with race curve, inserting disk, curve disk, and inserting lever, which is arranged for the desired characteristic, in this instance "groups of two flashes alternating with groups of four flashes." The return amounts to thirty seconds. This occulting table is also arranged so that it can be removed laterally to clean the lens. The reflecting lens and the arc lamp are mounted on the upper part of a double table, on the lower part of the table stands the dispersing lens with the blind frames. The lower part has a hollow cast-iron axle which is guided and supported by ball-bearing rings. The ball-bearing rings are all arranged in such a way that they can be exchanged in a very short time. The driving of the apparatus is effected by a small electric motor with worm, which gears with a worm wheel arranged upon the hollow axle; to prevent breaking of teeth when the motor is being put out of circuit and the apparatus continues running the rotation is transmitted to the apparatus by an elastic friction cone. The driving motor, with worm, is arranged to turn around a bolt so that the worm can easily be put out of gear.

The current is conducted to the arc lamp by sliding rings and springs on the upper part of the hollow axle. The base of the apparatus is cast iron and rests on a foundation plate fastened by adjustable holding-down bolts, so that the whole apparatus can be adjusted in a horizontal position with ease at any time.

Differential arc lamp.—The electric arc lamp used in this light, called the "differential arc lamp," is the latest and best thing in arc lamps for light-house purposes. The great difference between this lamp and the ordinary arc lamp is in the arrangement of the two carbons. The positive carbon is horizontal while the negative carbon is placed in an inclined position to the positive, the two forming an angle of 70 degrees. For the lighting effect only the crater of the positive carbon, which is situated in the focal point, is taken into consideration, the negative crater and the voltaic arc are of small importance. To obtain the greatest amount of light the positive crater is clear of the negative entirely, so that the total amount of light given out may radiate to the optic. The lamp is fitted with a special adjustable resistance and an automatic clockwork feed driven by means of a spring. This lamp is so arranged that it will only receive current when the carbons are at focal point. The positive carbon is 14 millimeters in diameter and the negative carbon 10 millimeters in diameter, both 480 millimeters in length, and will last nine hours. The arc is 7 millimeters in diameter, 70 volts and 20 amperes being used. The lighting power per square centimeter is 16,000 candles in a horizontal line. The candlepower of this light without the disperser is about 70 million, and with the disperser, which disperses the light over an arc of about 10½ degrees round, 4.8 million candles.

The annual cost for the maintenance of this light (three electric lights) is approximately $1,445. The annual cost of the Navesink light (one electric light), in New York Harbor, in the Third light-house district, is approximately $4,000.

The cost of the entire construction and installation of this station, two lights in main tower, cast-iron tower, keepers' stone dwelling, keepers' garden (turf brought by boats from a distance of 50 miles, and garden made about 75 feet by 200 feet), front range tower, heating apparatus, lighting plant, and generating sets in duplicate, was only $58,750.

The Heligoland light.—The Heligoland Island electric light is the most powerful in Germany, and is claimed to be the most powerful light in existence. It consists of a cluster of three revolving search lights having a lighting power of 40 millions of candles. This cluster of search-lights is surmounted by a single light of the same kind and size, that can be revolved independently and three times as fast as the three lights. This is put into use in case of accident to the cluster. The electric power is generated by two steam boilers and steam engines, running belt-driven electric generators. The fog-signal is a rocket exploded in the air about 200 meters high. This is not a good installation and will never again be duplicated. It costs about $8,000 per annum to run.

Gas illuminants.—Blau gas, Benoit gas, and Pintsch gas are all used in Germany for unwatched lighted beacons. Blau gas is an extract of oil gas produced by a lower temperature in the gas retorts, then compressed to 100 atmospheres, when it becomes a liquid. Benoit gas is a water gas mixed with benzine vapor. Pintsch gas is an oil gas.

Blau gas can be transported in small steel tanks under a pressure of 100 atmospheres in the same way as carbonic acid and oxygen. By special processes it is made possible to draw out of this gas before the high compression all those elements which liquefy at an ordinary temperature and at from 15 to 20 atmospheres (the liquid hydrocarbon eliminating with this compression). The remainder is a gas which will liquefy under any circumstances under a compression of about 100 atmospheres and then forms a very small volume. After the gas has liquefied, it is allowed to absorb as much of the easily liquefying gases as is possible under a compression of 100 atmospheres. This does not cause a fresh increase worth mentioning in the volume. This gas is burned in the same way as ordinary gas after reducing pressure by means of a valve. This gas can be easily transported owing to the small amount of space it takes up and can be used advantageously in such places where is it difficult to obtain ordinary oil gas and where it is easier to forward Blau gas bottles than to fill an oil gas storeholder, which is much larger. In places where there are no oil gasworks near at hand and where a light has to burn permanently without attendance this gas offers material advantages. The danger of explosion with Blau gas is no greater than with ordinary lighting gas, but the danger of leakage is of course greater at high pressure than at a low one. This gas is used by burning a naked flame, or with spherical or inverted incandescent mantles of different sizes.

A steel tank or bottle of 27 liters volume contains 7,500 cubic meters of gas at atmospheric pressure and its weight is 132 pounds, including the charge. The price of a full charge of the gas contained in one of these bottles is about $3.

This liquid gas will freeze in the pipes at a temperature of 6 degrees Centigrade below, but this objection is overcome by means of a store holder which is filled with gas from the liquid-gas tanks, and the light feeds directly from the store holder. This method also has the

the disperser, which is placed at such a distance from the disperser as to be at the angles of the crossing rays of light. In order to shut out the light these blinds are closed and opened by a mechanism arranged under the table with race curve, inserting disk, curve disk, and inserting lever, which is arranged for the desired characteristic, in this instance "groups of two flashes alternating with groups of four flashes." The return amounts to thirty seconds. This occulting table is also arranged so that it can be removed laterally to clean the lens. The reflecting lens and the arc lamp are mounted on the upper part of a double table, on the lower part of the table stands the dispersing lens with the blind frames. The lower part has a hollow cast-iron axle which is guided and supported by ball-bearing rings. The ball-bearing rings are all arranged in such a way that they can be exchanged in a very short time. The driving of the apparatus is effected by a small electric motor with worm, which gears with a worm wheel arranged upon the hollow axle; to prevent breaking of teeth when the motor is being put out of circuit and the apparatus continues running the rotation is transmitted to the apparatus by an elastic friction cone. The driving motor, with worm, is arranged to turn around a bolt so that the worm can easily be put out of gear.

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Blau gas can be transported in small steel tanks under a pressure of 100 atmospheres in the same way as carbonic acid and oxygen. By special processes it is made possible to draw out of this gas before the high compression all those elements which liquefy at an ordinary temperature and at from 15 to 20 atmospheres (the liquid hydrocarbon eliminating with this compression). The remainder is a gas which will liquefy under any circumstances under a compression of about 100 atmospheres and then forms a very small volume. After the gas has liquefied, it is allowed to absorb as much of the easily liquefying gases as is possible under a compression of 100 atmospheres. This does not cause a fresh increase worth mentioning in the volume. This gas is burned in the same way as ordinary gas after reducing pressure by means of a valve. This gas can be easily transported owing to the small amount of space it takes up and can be used advantageously in such places where is it difficult to obtain ordinary oil gas and where it is easier to forward Blau gas bottles than to fill an oil gas storeholder, which is much larger. In places where there are no oil gasworks near at hand and where a light has to burn permanently without attendance this gas offers material advantages. The danger of explosion with Blau gas is no greater than with ordinary lighting gas, but the danger of leakage is of course greater at high pressure than at a low one. This gas is used by burning a naked flame, or with spherical or inverted incandescent mantles of different sizes.

A steel tank or bottle of 27 liters volume contains 7,500 cubic meters of gas at atmospheric pressure and its weight is 132 pounds, including the charge. The price of a full charge of the gas contained in one of these bottles is about $3.

This liquid gas will freeze in the pipes at a temperature of 6 degrees Centigrade below, but this objection is overcome by means of a store holder which is filled with gas from the liquid-gas tanks, and the light feeds directly from the store holder. This method also has the advantage that during the whole time of burning the gas obtained is of a uniform specific weight, which is not always the case when the gas is taken to the burner direct from the bottle.

Blau gas is used in Holland, Denmark, Austria, and Germany; Benoit and Pintsch (oil) gas are used also, but they require larger store holders to store the same supply of gas.

Flashing gas-beacon lights, unattended, are used with oil gas, the apparatus consisting of a system of reflecting lenses rotating on mercury around their vertical focal axis with an inverted incandescent-mantle burner. The energy producing the rotation is supplied by the gas which serves afterwards for feeding the burners.

Incandescent oil-vapor burners.—Mantle lamps of German make are used. The mantles are of special manufacture, in accordance with specifications. Mantles as large as 100 millimeters in diameter are used in the German light-house service.

Lenses.—German lenses are here said to be better than the French, transmitting, according to German experts, 10 to 15 per cent more light than the French. The German lenses cost a trifle more than the French as a rule. The French grind their prisms with one curve and the Germans with three circular curves, which, it is claimed, gives at the same focal distance a greater height in fixed lenses and a greater surface on revolving lenses. This may or may not be so, as we had no means of verifying the statement; but it is a fact that the German light-house service is well equipped with appliances for examining optics, and the apparatus for light-house purposes is most excellent.

The Mangin mirror-reflecting lens.—This lens, lighted with incandescent oil-vapor lamps, is extensively used for range lights, with dispersers and occulting shutters. This apparatus gives a most excellent and very powerful light (with a 40-millimeter mantle—60,000 candles), and is much cheaper than a lens for this work.

The "Delane" patent sun valve is used in the German service in connection with Blau gas, Benoit gas, and oil gas unwatched beacon lights.

Occulting shutters or blinds are extensively used in the German service with satisfactory results.

Range lights for river lighting.—In Germany range lights show to the navigator not only the channel, but also when out of the channel in dangerous water, and the proper time for changing course. This is done by a system of colored sectors.

Acetylene gas, as an illuminant, is not used in the German service, as the German gas and oil vapor lights, with mantles, are considered powerful enough.

Lenses, testing.—This service has an arrangement for examining optics for all lenses or parts of lenses purchased. The lens rings, before they have been framed, are placed on a firm and absolutely level table. This table is made of steel and with great care. It is adjustable as to height and is provided on the outside with measurements for degrees. It has adjustable screws at the pedestal to make it stand absolutely level. The table carries a stand adjustable as to height, with micrometric screw for every exact adjustment of height, and also a cross support for adjustment on the horizontal plane. The latter carries the punctiform luminous body, a Nernst thread with strong sheet light of about 1.5 millimeters diameter and of similar length, which can be brought exactly into the focus of the lenticular element by means of the adjusting arrangements. A number of optical elements of the lenticular rings are isolated at various places by means of a blind, the slit or hole in which can be adjusted according to requirements. The blind is put up in front of that side from which the rays emerge. The streams of light which emerge, which sometimes, if necessary, are previously put through a color filter, especially in the case of dioptric elements, show on a screen a picture of the luminous body. This screen is so arranged that it is movable on an absolutely straight level, so as to enable observation of the course of the rays at various distances. A distance of 30 feet is favorable for clearly observing the pictures thrown upon the screen. A measuring rod arranged alongside of the screen, on which a movable blind for observing purposes, with a slit in it, answers for direct observations of the course of the rays of light.

After the lens is assembled in its frame the service lamp is placed in position, and the lens is again tested by a photographic photometer, and again tested at a distance of from one-half to 2 miles by a telescopic photographic photometer.

The lamps are all tested by a photometer arranged for angular measurements and a chart curve of the candlepower at different angles made.

NOTE.

In all foreign light-house services the clockwork used to run revolving lights and occulting shutters is worked by means of an endless chain drive over a drum with a weight attached, which requires the apparatus to revolve at a regular speed.

The light-house regulations are complete and understandable; the requirements of each and every employee are plainly and thoroughly stated for all conditions of the service.

Each important light or fog-signal station is equipped with a small blacksmith forge, an anvil, blacksmith tools, and small foot-power drill press and lathe, so that the keepers can make all necessary and minor repairs.

Assistant keepers are instructed at the general light-house depots as to their duties, the use of tools, and the operation of the light and fog-signal apparatus before they are sent to their stations.

Apprentice boys are taught at the light-house depots or at light-stations, during which time they receive small wages, to fill the position of light-keepers as vacancies occur.

Water tanks are placed at the tops of all towers for the purpose of catching rain water for scrubbing and for fire purposes.

Telephones are installed in all towers and connected to engine rooms and keepers' dwellings.

Alarm bells, that give warning to the keeper when to wind up the clockwork and when the clockwork is wound up, are fitted on all flashing lights.

We must at once consider the advisability of adopting a more modern and better oil-vapor lamp than we have now in use. Those used in Europe and described in this report require considerably less attention than the one used by us.

The purchase of the best kind of lenses, and the means of testing them before acceptance, should also receive careful consideration.

LIGHT-VESSELS.

ENGLAND.

The most modern light-vessels in the English service, as well as in other European services, have one hollow iron mast with a lantern on top, inside of which are pendular lenses and arrangements for suspending and balancing the apparatus from which the light is shown. Gas under pressure or oil-vapor lamps with mantles are used as the illuminants. The lights are made flashing by a flashing apparatus the same as used on buoys and beacon lights, or by revolving the lens by clockwork run by a weight, the same as used in connection with revolving-lens lights at light-houses. The weight is held in place by a track inside the mast. Inside of the mast is also a ladder and space enough for a man to reach the light from between decks without having to go outside to attend to the light.

Swin Middle light-vessel.—75 feet long, 25 feet beam. Crew: Mate in charge, one lamplighter, and one seaman. The lighting power of this vessel is a fourth-order revolving lens (operated by clockwork), oil gas, 1½-foot burner, with 50-millimeter mantle delivering 20,000 candlepower. The fog-signal is a compressed-air manual fog-horn (hereinafter described) operated by one man.

Tongue light-vessel.—104 feet long, 24 feet beam. This vessel has two 14-horsepower Hornsby-Akroyd oil engines, direct connected to air compressors, to operate siren fog-signal. A storage tank is kept charged, so that the fog-signal can be started at once, while the engines are being heated and made ready for service. There is also a wireless plant, the storage batteries of which are charged from the electric plant of the light-house tenders.

The lighting power of this vessel consists of a series of constant-level oil lamps, with reflectors around mast, which are revolved by means of clockwork driven by a weight, all inside iron mast and lantern. This old-style apparatus is to be changed, and a fourth-order pendular lens with gas as an illuminant installed at once.

The crew consists of the master, mate, two fog-signal drivers, two lamplighters, two seamen, and one wireless operator.

The North Goodwin light-vessel is the same as the Tongue light-vessel, but is connected from shore by an electric cable.

The English service has an unwatched (without crew) light-vessel with fog-signal located 5 miles offshore. This vessel is 70 feet long, built of steel, with one iron mast, with light-house lantern top, in which is placed a fourth-order revolving lens. The illuminant is oil gas, with mantle, compressed in four large storeholders in hold of vessel. These tanks are recharged by tender. The power for producing the rotation of the lens is a gas motor supplied by the gas from tanks, and which afterwards serves for feeding the burners.

The fog-signal is a bell with outside clappers, suspended so as to strike the bell by the motion of the vessel, the same as our bell buoys.

All light-vessel crews supply their own food.

Wireless plants on light-house vessels are operated by the crews of the vessels, after having received instructions at naval wireless stations.

Submarine-bell fog-signals of the American or German make are on all light-vessels equipped with power.

The crews of light-vessels are given leaves of absence by exchanging stations with the tender crews or men at the general depot, in which case the light-vessel men work on the tenders or at the light-house depot, as the case may be.

Special daymarks on the English light-vessels are hoisted up when the vessel is on station, and when off station they are lowered.

Acetylene gas or electric light is not used on vessels in the English service.

The English are using, in comparison with their welded chain cables, a patent rolled weldless chain made by machinery in England, which is somewhat cheaper than the hand-made chain. The service tests have not yet been completed. The physical tests made show the chain to be equal to the hand-made chain.

The manufacture of this chain was investigated and the finished chain examined. Each link, instead of being produced from a solid bar bent and welded, is rolled flat in a continuous coil, and subsequently compressed into a homogeneous piece by means of special machinery for this purpose, the stud, if used, being at the same time fixed in position by hydraulic pressure. By this process of manufacture every link is of uniform size and equal to every other link in the chain. The links are thickened at their ends, which is a good feature. It is doubtful, however, if the coil can always be kept at a proper heat so that this process will always weld the coil, which is laid up like a piece of flat tape, to itself through and through. If such is the case the chain is weakened, and would rust in service between the lay of the coil where not welded.

These chains can be produced by this machinery, we are advised, at the present time from three-fourths inch diameter of section of link, advancing by one-sixteenths up to 3½-inch diameter of section. The largest chain inspected of this kind was 1⅝-inch diameter of section.

SCOTLAND.

The light-vessels of Scotland are built on the same lines as those of the Trinity House (English) service.

There is one gas-lighted unattended light-vessel in service in Scotland, of the same character as hereinbefore described. The North Carr light-vessel will shortly have installed on board an acetylene generating plant (carbide-to-water system) to produce gas for use as an illuminant and for operating fog-signal.

FRANCE.

The light-vessel service of this country is practically the same as in England in all features. The unwatched gas-lighted light-vessel is considered the best.

HOLLAND.

The light-vessels in the Holland service are all the old-style reflector oil lamps, hoisted up to the masthead, with the exception of two vessels with electric lights. One of the new unwatched gas-lighted light-vessels of the same type as the English and French is now under construction.

DENMARK.

The modern light-vessels in the Danish service are lighted with acetylene gas compressed in tanks, one light shown from iron hollow mast in which is placed a pendular 500-millimeter lens. If the flash light is used, the " Delane " flasher is in service.

Compressed-air sirens are the fog-signals, the installation including storage tanks for air, so that the siren can be sounded while engines are being heated and placed in service.

Vessels are equipped with wireless, which is operated by members of the vessels' crews.

The entire crew on light-vessels are required to stay on board during the three winter months. The other nine months the officers and two of the crew are granted leave of absence in turn.

SWEDEN.

Compressed acetylene is used on the Swedish light-vessels, the light being shown from one hollow iron mast, with light-house lantern on top, with a 500-millimeter pendular lens, eight 1-foot burners, delivering 3,000 candlepower, the characteristic of light being short flashes by means of the " Delane " flashers. The seven gas holders used contain about 1,500 cubic feet of gas, which is more than ample for a service of one year, the cost of one year's supply of gas being approximately $30.75.

GERMANY.

The " Norderney " light-vessel is the latest of the large light-vessels in the service, and was built after an inspection of all the most modern light-vessels in Europe. This vessel is about 150 feet long, and built of steel. The light is shown from one iron hollow mast surmounted by a light-house lantern, in which is placed a third-order pendular lens. Pintsch (oil) gas with mantle is used, from storeholders placed in hold of the vessel, the gas being transported to and compressed in storeholders by light-house tenders. The lens is revolved by means of clockwork, fitted with a weight drive. With a 30-millimeter mantle which is used this light shows 50,000 candlepower, and is the most powerful light shown from a light-vessel. This vessel is equipped with 200 horsepower oil engines that drive an air compressor for the siren fog-signal, air being stored in tanks for instant use of signal if needed. This vessel is also fitted with a steam boiler for heating and for reserve power for siren if needed.

A Pintsch submarine bell operated by compressed air is in service. This bell is placed about amidships on the spar deck, and when in service is lowered below the keel of the vessel through an open tube built in the vessel for this purpose. The wireless equipment is operated by the crew.

The complement allowed this vessel is captain, mate, one engineer, one fireman, one boatswain, one carpenter, one cook, and six seamen. One-third of the crew is allowed shore leave at one time, except in the winter, when all are required to remain on board.

In the German service for three light-vessels four engineers and four firemen are employed, one extra engineer and fireman to relieve the engineer and fireman on station. The extra engineer and fireman are employed on the relief light-ships at the light-house depot.

NOTE.

In the United States we have light-vessels of better and stronger construction than any found in Europe, and with more powerful motive power; but we have only five that do not burn oil, and all have reflectors or lens lanterns. The installation of lenses, the kind of illuminant, and the one-mast system should receive our careful attention.

At the general light-house depots of the foreign light-house services that use oil gas there are established oil-gas plants for light-vessel, buoy, and beacon service, the gas being transported by tender if necessary.

On all the most important light-vessels wireless telegraph systems have been established.

The light-vessels not already equipped with submarine bells are to receive such an outfit as soon as they can be installed.

When in Denmark the "Poulsen" wireless system of radio-telegraphy and radio-telephone was inspected. The inventor, Valdemar Poulsen, claims to have discovered a method of producing continuous electric waves, which renders possible an extremely fine attuning of instruments, so that a great number of stations, whose tone corresponds, can operate through the same space without interfering with one another; and that his wave reduces, to a great extent, the disturbances due to atmospherical electricity; that much less momentary energy is used for the same distance than is the case with other apparatus; that telegraphing is done more quickly and with more exactness, inasmuch as the great flames occurring at the key when using the other systems are absent in the Poulsen system. The installation of the sending apparatus is much easier and cheaper, as the electrical tension is far less in the Poulsen apparatus than in that of the other systems for wireless telegraphy. The Poulsen apparatus is nearly silent, and can not be read outside of the operating room. The operating expenses are much cheaper.

The station at Lyngby, which was visited, has received signals from one of the ocean liners, using only 6 kilowatts over a distance of 1,600 miles; 300 words per minute were received from a distance of 162 miles, the primary energy of the transmitter being 2.6 kilowatts; and 100 words per minute from a distance of 540 miles, the primary energy of the transmitter being 15 kilowatts. In both cases the height of the antenna of the transmitting and receiving station was about 210 feet. Telegrams were received from several stations simultaneously.

It is said that without this continuous wave wireless telephony is impossible. Telephone conversation was held very distinctly between the stations at Lyngby and Esbjerg (overland) a distance of about 162 miles, and at Lyngby gramophone music played at the Berlin station was plainly heard, a distance of 240 miles.

If wireless telegraph or telephone is to be installed at light-stations or on light-vessels or tenders, it is believed that this system should be looked into by an expert.

FOG-SIGNALS.

ENGLAND.

The light-house service of England (assisted by the Scottish service) by exhaustive and comparative experimental tests looking to the improvement of sound-producing instruments has gained great experience and knowledge regarding fog-signal apparatus.

The cylinder form of siren has been adopted by England and other light-house authorities as affording a more convenient mechanical arrangement for self-rotation, and as the most powerful sound-producing fog-signal in existence for guarding large areas.

The disk siren with a very low note, corresponding to the lower G in the base clef, is considered by some light-house authorities to be equal, if not superior, to any other signal.

The reed-horn signal has been replaced as a fog-signal by both the cylinder and disk signals. The reed horn is now being used for land-locked positions, as it is more economical to operate, occupies less space, and is considerably cheaper as regards first cost.

In the English service two trumpets are used for the purpose of distributing the sound over the area required. For example, it is believed that it is better to have two trumpets whose axial lines inclose an angle of 120 degrees to guard an arm of 220 degrees. This, however, is a matter of opinion on the subject of experimental tests, as other light-house authorities are of the opinion that the fog-signal trumpet should be pointed to seaward as nearly to windward as is consistent, but not nearer than 30 degrees from the shore line.

Compressed air is now generally used in fog-signal work, the steam whistles and explosive signals having been proved wasteful and inefficient instruments in comparison with the compressed air. The explosive signal (tonite or cotton powder) is, however, still used in England, but the light-house authorities will not install any more of these. We learned from mariners interested that such a signal can not be located with any degree of certainty.

The low-pitched sounds are superior to the high and require about one-half as much air to operate. At stations with signals with both a high and low note the notes produced correspond to the musical notes of the lower D in the treble clef and the upper F sharp in the bass clef, and are considered the most effective for the purpose.

It is considered that the best fog-signal whistle is one that is capable of giving a blast which runs up the sound scale from a low-pitched note to a very high and shrill sound.

The Trinity House (light-house service of England) has a fog-signal called the "manual service horn," designed to replace, and which has superseded, the gong or bell signals in small light-vessels and at stations where it is not necessary that the sound carry to a great distance. This signal is a small portable reed horn blown with air at a pressure of 5 pounds per square inch by means of a hand wheel and crank or by a pedal which is effectively worked by one man.

The Hornsby engine (internal combustion ignited by compression against a hot surface) is used in connection with air compressors for fog-signal work in England, the same as in our service. Reserve tanks for compressed air are always installed, and these sound the signal for about twenty minutes while the engines are being heated and made ready for service.

In some cases fog-signal trumpets are placed as far as one-half mile distant from the engine and compressor (power house or light-station) in order to get a better location for the noise-producing instrument for the benefit of mariners.

The installation of submarine bell fog-signals operated by electricity from shore to mark the ends of dangerous shoals or rocks extending off shore from headlands as an extra landfall warning to the mariner in case the sound signal does not carry, will, we are informed, soon be accomplished on the English coast. This subject is also receiving the consideration of other light-house authorities of Europe.

SCOTLAND.

The authorities of Scotland do not believe in the two-trumpet system used in England for the purpose of distributing sound over a large arc, but use the single trumpet pointed to windward or in the direction of the course of vessels. Otherwise the fog-signal installation is practically the same as in England. Internal-combustion oil engines, fired by compression against a hot surface, are used, and are directly connected to air compressors. A storage of air is kept on hand in the air tanks in order that the signal can be instantly started in the event of fog, while the engine is being heated and made ready to run. The engines are also started with compressed air, which makes it unnecessary for the engineman to crank the engine as in our service, a very hard task for one man. In our service it is sometimes necessary for two men to do this, and some of our keepers have been injured in doing this work. The engines are fitted with vaporizer attachment to give a proper and regular feed of fuel. At the stations where the fog-signal house is some distance from the landing, the fuel (oil) is forced up to the storage tanks by compressed-air power. At the most important fog-signal stations the sirens have air-driven motors or turbines, one cylinder revolving inside another with air ports. The effect of the siren being driven by a separate motor gives a uniformity of the sound during the entire blast, there being no drawl at the commencement or ending of the blast as is the case with many signals. The clockwork that governs the characteristic of the signal is automatically wound up by the separate motor that operates the siren.

The fog-signals in this service have clocks (cost $30 each) that record the starting of the signal, every blast that the signal makes, and when the signal is stopped. In addition to this, the keepers at other stations are required to keep a record of the fog-signals and lights at other stations than where they are stationed and their records are forwarded to the superintendent or inspector of the district. This system insures a very accurate record of the operation of the signal and light, as well as a constant watch of the alertness of the light-keeper and the efficiency of the light and fog-signal.

FRANCE.

The French service does not have so many fog-signals as other countries of Europe where there is much more fog, but what they do have are air signals using the cylinder disk, and reed-horn signals, having both steam and oil engines driving air compressors. The steam engines were installed to generate electricity for the lights before the oil engine was considered for this service, and where fog-signals were subsequently established at such stations the steam engine was utilized for the fog-signal air compressor, with an air storage, so that signal can be sounded immediately the fog commences.

HOLLAND.

Fog-signals in the Holland service are generally like those heretofore described and used in England, all operated by oil engines.

DENMARK.

This service has practically followed the English. All fog-signal stations use compressed air, the old stations using steam engines and the new stations oil engines with storage of air sufficient to run the signal, immediately fog starts, for about twenty minutes, until the engines are ready.

SWEDEN.

The fog-signal service of Sweden, like the English service, has compressed-air and explosive signals.

The compressed-air signals are operated by gas engines and a storage of air in tanks to run signals during the required period to get engines working. All fog-signals will be converted to compressed-air signals as funds will permit.

An acetylene fog-signal test (now in its experimental stage) was inspected at the works of the Gas Accumulator Company, of Stockholm. This signal is a cylinder disk with holes or chambers, revolved at great speed by gas, which is afterwards used by the signal. Acetylene gas mixed with air is forced in the holes of the cylinder and then exploded, and as a noise producer it promises well. The inventor is working on a device, which he hopes to perfect, that will automatically start the signal when required. This engine will be a valuable addition, at small cost for first installation and maintenance, at light-stations using acetylene as an illuminant.

GERMANY.

The fog-signal service of Germany is practically the same as England—compressed-air signals operated by oil engines. In this service use is made of a clock attached to the signal which records the starting and stopping of fog-signals.

NOTE.

Trumpets.—Light-house authorities differ in their opinions regarding the size of trumpets and the material of which they are made. It is, however, an accepted fact that beyond a certain length of trumpet there occurs effects of resistance to the transmission of the vibratory movement which has a notable tendency to weaken the sound. After repeated trials it is generally considered that the French pattern of trumpet, which is 4 feet 6 inches in length, with 1 foot 1½ inches in diameter at the mouth, with bell end, and made of brass, is equal to, if not better than, other larger types.

The steam whistle fog-signal is not used in any service other than the United States. In comparison with the cylinder disk and reed-horn signals its sound is weak.

Hertzian wave.—Clearing the atmosphere of fog by means of Hertzian waves (electric), which has been experimentally tried in the English Channel with reported success for short distances, was investigated and found to be somewhat visionary.

Submarine fog-signals.—The submarine bell as an aid to navigation has generally been adopted for light-ships by the authorities in the countries visited, and is now being seriously considered by some to mark the positions of dangerous offshore shoals, the signals to be operated from shore stations. Submarine bells are not used on buoys except in this country.

At the present time there are two firms prepared to furnish submarine bells, namely, the Submarine Signal Company, of Boston, Mass., and the Julius Pintsch Company, of Berlin. Both of these firms have installed their signals in foreign light-house services.

The signals are operated as follows: For light-vessels—Boston company, compressed air; Berlin company, compressed air or gas. For buoys—Boston company, by action of the waves; Berlin company, by gas, afterwards used for light. For offshore shoals, etc.—both companies, by electricity.

Engines for fog-signals.—The engine used to drive air compressors for fog-signal purposes and at electric-light stations is not altogether ideal as an economical or efficient type of oil engine. In the German light-house service we found an engine, used at an electric light station, that, for light-house purposes, is a great improvement on the engine we use in our service. This engine is not well known in the United States, although it is used in a number of places at central power plants in this country, and it is well known and extensively used in many modern power plants in Europe and elsewhere. The engine was invented by Rudolph Diesel, a German engineer, and is called the "Diesel engine." We had an opportunity to conduct a test of this type of engine under service conditions. Its method of working and its advantages over engines used in the Light-House Service are hereinafter given.

The Diesel engine is an internal-combustion oil engine of the four-cycle type, using petroleum residue or crude petroleum as a fuel, which is ignited by the heat of compression.

The cycle is as follows:

1. Air at atmospheric pressure and temperature is drawn into the cylinder.
2. This air is compressed to about 500 pounds per square inch and becomes heated to about 1,000 degrees Fahrenheit, which is far above the ignition point of oil.
3. Fuel is forced by special air pump into the cylinder just before the completion of the compression stroke at a constant pressure.
4. The waste gases are exhausted to atmosphere.

All possibility of a premature ignition or sudden increase of pressure is eliminated because only the air used for combustion is compressed, the fuel being injected after this compression of air has taken place.

The engine is started by simply turning a valve, as an air engine, using air stored in a cylinder for this purpose during a previous run to a pressure of 800 pounds per square inch. When this pressure in the starting tank is reached it is automatically shut off. When the engine takes full speed the fuel valve engages a cam and ignition takes place; the starting valve is at the same time closed. From the engine stopped to full load takes from 35 to 45 seconds.

The efficiency of this plant on the fuel used—oil tar, a by-product of a gas plant—is about as follows: One-half load, 25 per cent; three-fourths load, 30 per cent; full load, 31 per cent.

This is an old plant, and with the improvements since made in the engine I am told that they now attain a heat efficiency of 40 per cent; 27 per cent is the best result obtained from a gas engine and 20 per cent for the best steam engines; 18 per cent efficiency is about what we get in our fog-signal engines with the best kerosene oil as fuel.

The combustion was excellent, there being no smoke or smell.

Crude petroleum costs in New York about 3 cents per gallon; oil used in our oil engines costs about 10 cents per gallon.

The advantages of the Diesel engine over our engines are:

1. Cheapness of fuel.
2. Higher economy.
3. Higher efficiency.
4. No heating lamp or ignition devices.
5. Simplicity (does not require skilled man to run).
6. Starts itself and on load within one minute.
7. Small space required.
8. Regularity and steadiness with varying loads.
9. Fuel used having a very high flash point.
10. Requires very little lubricating oil.

All fog-signal stations in Europe, not only ashore but on board light-ships, are supplied with reserve tanks, which are always charged with compressed air after the fog has cleared but before the engine has been stopped. In this country we have only one such device on shore and none afloat. These reserve tanks permit the signal to be started immediately and to run for about twenty minutes, thus giving ample time for the engine to be ready for work, and not only have the great advantage of being able to start the signal at once but also to prevent the excessive wear and tear on either engine or boilers, or both.

The necessity for installing these reserve tanks should receive immediate attention.

BUOYS.

ENGLAND.

The English service uses oil gas as an illuminant for buoys, the lantern of which is the invention of Sir Thomas Matthews, engineer in chief of Trinity House, which invention has made the use of a mantle possible and has increased the intensity of the light so as to be equal to that of any other lighted buoy.

The great advantages of this lantern, aside from the increased intensity of the light, are, first, by means of a small pilot burner, which keeps the mantle at all times at a lighting temperature, it is possible to make a flashing light of any desired characteristic; second, the consumption of gas is greatly reduced, for the reason that it is mixed with air before it reaches the burner; third, the use of a mantle shows a light of equal intensity in all directions, which is not the case with an open flame.

At the general light-house depot at Blackwall there is an oil-gas plant for the manufacture of gas for aids to navigation.

SCOTLAND.

The lighted buoys of the Scottish service are all oil-gas buoys and contain nothing new.

FRANCE.

In the French service the oil-gas buoy is used, and although experimental work with the acetylene buoys has been carried on, the use of acetylene for buoys in that country is not yet approved.

HOLLAND.

The light-house service of Holland has in use both oil-gas and acetylene-gas buoys, the latter of the Swedish type, which is known in this country. There is a line of acetylene buoys on the way from Amsterdam to Zaandam, and according to the Dutch authorities they have given perfect satisfaction.

DENMARK.

The Danish service, like the Dutch, has in use both oil-gas and acetylene-gas buoys, and both have been pronounced as satisfactory; but there is nothing in any of those buoys with which we are not acquainted.

SWEDEN.

In Sweden the use of acetylene of the type which they have furnished this service is in use for all buoys, as well as for nearly all other aids to navigation. The use of acetylene is universal in that country and is pronounced to be very satisfactory.

GERMANY.

The lighted buoy of Germany is the oil-gas (Pintsch) buoy. The inventors of these buoys are making constant improvements and, like the English service, have changed their lanterns so as to make the use of the mantle possible. They are also constructing the lantern of aluminum, thereby obviating much top-heaviness. In Germany there is a submarine bell for lighted buoys, which is operated by the gas, after which the gas is led to the burner and there consumed. Drawings of this apparatus were furnished to us, and these bells will be a subject of competition with the bell of the Submarine Signal Company, of Boston.

NOTE.

The buoys in our service are generally better adapted for our requirements and purposes than those inspected in Europe, with the exception of the oil-gas buoy with a mantle in use in England and Germany.

So far as the use of acetylene gas for lighting purposes is concerned, the experiments carried on in this country with the different types for generating this gas have been more extensive than in any country in Europe, except Sweden, and nearly all countries visited by us requested information as to the results of our experiments.

Moorings for buoys in all countries visited are about the same as those in our service since we have adopted the open link for buoy service.

The invention of Sir Thomas Matthews (lantern for oil-gas buoys) is of great importance to our service, as we would certainly have been compelled in the near future to discard our oil-gas buoys for others which show a better light. This has been done in Canada at a very great expense. We are not prepared to say that this buoy, after having had its lamp altered, is better than the acetylene-gas lighted buoy, as the experiments with the latter have not yet been completed, and as there may be localities where an acetylene gas buoy could be used and a Pintsch-gas buoy could not. Yet the Pintsch-gas buoys now used can all be converted at a very small expense. Drawings and blueprints necessary for the purpose were obtained at the Trinity House in England.

Appendix 2.

REPORT OF DR. HENRY S. PRITCHETT, MEMBER OF THE LIGHT-HOUSE BOARD, UPON AN INSPECTION OF AIDS TO NAVIGATION IN SOUTHEASTERN ALASKA.

I have the honor to report that, in accordance with the instructions of the Board, I have completed an inspection of the aids to navigation in southeastern Alaska, using the tender *Manzanita.* This opportunity has been of great service to me as a member of the Board in learning at first hand the nature of the problems to be dealt with in this district and the character of the aids to navigation which seem to be demanded. I beg to make the following suggestions, which I will supplement later by conferences with the executive officers concerning these suggestions and concerning the details of particular lights.

The whole problem of aids to navigation in southeastern Alaska is wholly different from that which the Board meets on the Atlantic coast, and even on the Pacific coast of California, Oregon, and Washington. There is, in the first place, the transfer of several hundred miles from Seattle before the first American light-house is met. This alone makes a serious problem in seeking to supply light-houses and to care for lights in this region. It seems to me clear that the present policy of supplying these lights from a distant point like Seattle should be abandoned as soon as the Board can obtain the necessary appropriations for the use of a tender in Alaska, and that the Board should then have all supplies delivered at either Sitka or Juneau, and leave the tender to spend its time in Alaskan waters.

The character of the channels and of navigation, together with the state of commerce in this region, seem also to indicate clearly that we should construct no more large light-houses, but should supply what additional lights may be needed by means of an acetylene beacon wherever this is feasible, and where these are not feasible, with acetylene buoys, to be kept in order by the tender.

This policy seems not only the more economical, but the only one likely to give satisfaction. It is almost impossible to obtain satisfactory service for present beacons which require frequent visits. I found that there was great complaint on the part of navigators concerning some of the Alaskan lights now maintained in this way. For example, the complaint is made that the light at Hog Rocks was out of order for a good part of the last winter. This light is tended by a man who lives at a considerable distance from it, although the nearest accessible person who can be employed. Similar complaint was made concerning the light on Battery Point, near Fort Seward, which is tended by someone connected with the garrison. The difficulty of having post lights cared for is so great that the policy of gas beacons and buoys, tended by a steamer, seems to promise a far better service.

The state of commerce in this part of Alaska, and its future significance, seems to me a matter hard to estimate. The number of steamers which go up in the summer is very large, but no one can tell how long this commerce will last. For this reason, as well as from the general character of the navigation itself, it seems to me doubtful whether the Board should enter upon the detailed illumination of such a region, for example, as Wrangell Narrows, except for a single post light at the entrance to the narrows. This passage is already thoroughly marked for day navigation, and for the four summer months day navigation means practically the whole twenty-four hours. To light this passage so that it can be used at all times in the winter means a very large expense for lights at turning points and to form ranges. I question the wisdom of this expenditure, and find that the better-informed pilots are inclined to look upon Wrangell Narrows as a day course only. Furthermore, the amount of commerce which in winter needs to use this passage at night is extremely small.

There can be no question that a good light is needed at Cape Spencer, since Cross Sound is being used now in increasing numbers by vessels which go to Prince William Sound. There is, however, considerable doubt amongst ship captains and pilots as to whether a fog-signal is needed at this place, their idea being that the coast is so dangerous that a fog-signal could not be trusted for a sufficient distance to make it a secure signal. I am inclined to believe that this opinion is sound, and that a good light at Cape Spencer will answer the needs of navigation.

The real problem before the Board in the matter of the Alaskan lights seems to me, therefore, rather a question of the policy to be adopted than a question of particular lights. I venture to suggest that the installation of new lights await the result of the experiments to be tried with the acetylene buoys in the Third district. If at the end of these experiments the Board feels that it can safely adopt some of these buoys for Alaskan use and can depend upon them to run for a period of some months, it would then seem right and necessary to make of Alaska a subdistrict and to install a tender to serve the subdistrict, substituting tender service instead of the services of light keepers employed on the spot. An adequate system of acetylene lights could under this condition be maintained, according to my judgment, at far less expense and a much better system of lights be secured than can ever be done by the erection of light-houses.

* * * * * * *

APPENDIX 3.

REPORT OF COMMANDER E. H. TILLMAN, U. S. NAVY, UPON A FIELD EXAMINATION OF THE YUKON RIVER, AND THE NECESSITY FOR AIDS TO NAVIGATION ON THAT RIVER.

GENERAL DESCRIPTION.

The Yukon River is formed by the junction of the Lewes and Pelly rivers, in Yukon Territory, Canada, in about latitude 62° 50′ north, longitude 137° 20′ west, and is about 1,717 miles in length, 1,450 miles of which is in Alaska. The river is often spoken of as being over 2,100 miles in length, which would be true, and it would be even longer, if the Lewes, Thirty-mile River, Lake Labarge, and Fifty-mile River were considered a part of the Yukon. The Lewes River has its sources in small lakes (Lake Marsh, Lake Bennett, and Lake Askell) and streams about 400 miles to the southward and eastward of the point where it joins the Pelly River, and is, in connection with its tributaries, navigable for light-draft boats as far up as White Horse, Yukon Territory, a distance of about 280 miles. At this point are the White Horse Rapids, and about 3 miles above them Miles Canyon.

From its formation (by the Lewes and Pelly rivers) the Yukon River, though very crooked, flows in a general northwesterly direction for about 555 miles to a point just above the Arctic circle, in longitude 145° 20′ west (approximate); here it turns to the westward, then southwestward for a distance of about 1,160 miles, and finally empties into Bering Sea through several mouths or passes, the mouth of the northern, known as Apoon Pass, being about 90 miles from the mouth of the southern, known as Kwemeluk Pass.

The Yukon crosses the boundary line between Canada and Alaska in about latitude 64° 40′ north, longitude 141° west; from that point to Circle (a small village) it flows for a distance of about 204 miles, mostly between high hills, which often rise almost perpendicularly from the water; occasionally between the river and the hills low plats of ground are seen, which are thickly covered with spruce, cottonwood, and alders. The banks in this section of the river are mostly rock and gravel, except where formed by the low plats referred to above, where there is a mixture of rich soil, sand, and gravel, the lowest strata visible being nearly always gravel. The river is extremely crooked and narrow, varying in width from 200 yards to one-half mile; the currents are strong, requiring masterly handling of a boat rather than expert piloting.

From Circle to Fort Hamlin, a distance of about 237 miles, the character of the country through which the river flows is entirely changed from that above described. It flows through a great valley, becomes broad and full of islands formed by numerous sloughs; the banks are low; the channel, winding between sand bars, is very crooked and difficult to follow, and changes are many and rapid. Measured across sand bars and sloughs the width varies from 1 to 5 or 6 miles and reminds one who has seen the Mississippi at flood stage of certain sections of that river. That part of the river between Circle and Fort Yukon, a distance of about 85 miles, is known as "Yukon Flats," and, to use the language of one of the old pilots, "is rightly considered the worst part of the river. The channel shifts continually, new bars are formed and old ones wash away; where the channel is one season may be dry land the next."

From Fort Hamlin to Tanana (Fort Gibbon), a distance of about 171 miles, the river is deeper and more narrow, and both banks for a great part of the way are again formed by high hills. As the hills are of rock formation and the little lowland mostly sand and gravel there is little change in the channel from year to year for a greater part of the distance.

From Tanana to Anvik, a distance of about 496 miles, there is almost a continuous chain of hills on the right bank, forming in many places high precipitous banks, but on the left bank few hills or mountains are seen, except miles back the bank is low, and the same thick growth of cottonwood, alders, willows, and spruce are seen that are found pretty much the entire length of the river wherever the banks are low.

From Anvik to about 25 miles below Andreafsky (also spelled Andreaofsky), a total distance of about 250 miles, the right bank is generally formed by high hills, but the left bank is lowland, and most of the hills and mountains visible on that side are with few exceptions 25 to 75 miles distant.

From about 25 miles below Andreafsky and nearly 100 miles above the mouth of the Apoon Pass the river flows through the low delta lands, separates into a number of branches or passes, and finally into Bering Sea by these passes, known—named in their order from the northward—as Apoon Pass, Okwega Pass, Kwikpak Pass, Kanawak Pass, Kwikluak Pass, and Kwemeluk Pass; Kwikluak Pass being by far the largest of all, but Apon Pass is the only one by which boats regularly leave and enter the Yukon. All the passes are very shoal at their mouths. To give an idea of the extent of the great delta it is only necessary to state that the entrance to Apoon Pass is in about latitude 63° 05′ north, longitude 163° 20′ west, and that Kwikluak Pass is in about latitude 62° 35′ north, longitude 165° west..

Tributaries.—There are many streams in Alaska tributary to the Yukon, the most important of which, with the distance of their confluence with the Yukon from the mouth of the Apoon Pass, are Koyukuk River, 568 miles; Tanana River, 839 miles; and Porcupine River, 1,162 miles; all of these are navigable for hundreds of miles by very light-draft steamers.

Towns, villages, or settlements along the Yukon.—The following are villages or settlements along the Yukon, with distances from the mouth of Apoon Pass. Some of them contain only a store and a few houses, but river steamers stop at them when necessary to land passengers, freight, or mail.

Towns.	Miles.	Towns.	Miles.
Andreafsky	119	Kokrines	700
Russian Mission	231	Birches	758
Holy Cross	296	Tanana (Fort Gibbon)	839
Anvik	348	Rampart	919
Kaltag	508	Fort Hamlin	1,010
Nulato	548	Fort Yukon	1,162
Koyukuk	568	Circle City	1,247
Grimkop	587	Eagle City (Fort Egbert)	1,487
Louden	620	Dawson	1,539
Melozi	653	Selkirk	1,717

The distance from St. Michael may be found by adding 62 miles to the above.

White Horse, at the head of regular navigation of the Yukon and Lewes rivers, is 280 miles above Selkirk, 1,717 miles from the mouth of Apoon Pass, and 2,041 miles from St. Michael. From White Horse to Skagway by the White Pass Railway it is 111 miles.

On the Tanana River, 275 miles above its confluence with the Yukon, is Fairbanks, largest and probably the most important town in the interior of Alaska. During the open season—that is, from about the middle of May to the 1st of October—when the river is comparatively free of ice, boats with drafts of from 2 to 3½ and even 4 feet run to Fairbanks, carrying and towing large quantities of provisions, merchandise, and mining supplies.

Channels.—The channel of the Yukon is for the greater part of its course crooked and narrow, especially on the Yukon Flats between Circle and Fort Yukon, and also between the latter place and Fort Hamlin, and leads between hard sand and gravel bars, following first one bank and then the other. The least depth in the channel at ordinary low stage of the river is found on the Yukon Flats, through which a draft of about 4 feet may be taken by a good pilot. It should be remembered, however, that the low stage of the river is not generally until the last of the open season, and then it is not nearly so low as after the ice forms. Owing to the difficulty of navigating this part of the river the Northern Commercial Company, the only company running boats regularly this season on this part of the river, employs a special pilot to keep posted on the changes in the channel and to pilot over the flats, although other masters and pilots do at times take their boats over them.

The Apoon Pass is very narrow and crooked and has two or three points where the depth at low water of the open season is only about 5 feet.

It is in passing over the flats at the mouth of the Apoon Pass that the shoalest water is encountered by boats running up the Yukon from St. Michael. Few of the regular river boats can enter the Apoon Pass except at or nearly at high tide. The tides are diurnal, and the ordinary rise from 3 to 4 feet, but a fresh wind will, depending upon the direction, very materially increase or decrease the rise.

After every breaking up of the ice changes in the channels are found, especially where the river is broad and comparatively shallow and the ice grounds. Wherever, except between rocky hills, the great flows of heavy ice coming down the river gorge or ground it either cuts into the bars and channel edges or forces a change in the direction of the current, soon resulting in a change in the channel; the low banks are often also cut and swept by the ice.

Rapid changes in the channels between Circle and Fort Hamlin are taking place all summer, but the channel over the flats is much better defined at low than at high stage of the river.

Currents.—The currents are strong, their velocity varying in different sections of the river and at different stages of the water from 2 to 5, and at some places, but rarely, reaching a velocity of 6 to 7 miles an hour in the channels; the average velocity is about 4 miles an hour, but it is much less in the lower section of the river below Andreafsky.

The "drop of the river" (difference in elevation above sea level) between its head and the mouths of the passes is about 1,700 feet, or nearly a foot to the mile, and were the river not so crooked the velocity of currents would be so great as to make its navigation extremely difficult. The "drop" of the Mississippi between Cairo and the Gulf is only about three-tenths of a foot to the mile.

Caving banks.—At many points and for long stretches the banks, where low and mostly earth and sand, are caving and washing, at some points quite rapidly, but the progress of the change in the banks by washing and caving is slow compared to that taking place on the lower part (below Cairo) of the Mississippi. If one goes back a few feet from the banks of the Yukon and digs two or three feet "frost is struck" even at the end of the summer, and naturally no large caving takes place at one time; the water thaws the bank slowly, scours the earth out and leaves an overhanging turf of roots and earth which finally drops into the river. For about seven months of the year the river is frozen over and little or no washing or caving of the banks takes place. Miners state that they have often dug down 30 to 40 feet and found the ground frozen to that depth, and in some cases to a depth of 200 feet.

Ice.—The ice generally begins to break up at Dawson early in May, and the river between that point and Andreafsky is generally free enough of ice by May 25 to allow of steamer traffic between those points, and up to Fairbanks, but the ice on Bering Sea and around the mouth of Apoon Pass does not usually permit traffic from St. Michael up the river before the middle of June. Ice begins to form in the river early in October and all steamer traffic soon ceases.

High and low stages of the river.—Little reliable information could be obtained in regard to the rise and fall of the river, some pilots and masters stating one thing and others another. When the ice breaks up and gorges at some narrow points it has been known to cause a quick rise of as much as 30 or 35 feet, but 20 or 25 feet would probably cover the range from extreme low to high water, and would far exceed the rise where the river is broad and has so much territory to spread out over as on the "Yukon Flats" and between Fort Yukon and Fort Hamlin.

The range of rise and fall of the river during the "open season" is probably not more than 10 or 12 feet; on the Yukon Flats the rise is less, as it requires a foot or more rise of the river above the flats to produce an inch rise on them.

Near the mouths of the passes the variation in the water level is only a few feet, due mostly to the diurnal tides.

COMMERCE ON THE YUKON.

The total value of merchandise shipped from the United States to St. Michael and Yukon Basin during the calendar year 1908 was $3,294,689. Of this total an amount to the valuation of $1,475,417 went to Fairbanks, 1,176 miles from St. Michael; the remainder, besides supplying St. Michael, was distributed at the villages and landings along the Yukon and other tributaries than the Tanana. It is well in considering the nature of the commerce to remember that a large proportion of the supplies are foodstuffs and the necessaries of life.

The following statistics for the calendar year 1908 are of interest in connection with the consideration of the establishment of aids to navigation on the Yukon:

Arrival of ocean steamers at St. Michael	85
Gross tonnage of ocean steamers arriving at St. Michael	131,281
Arrival of river boats at St. Michael	52
Arrival of barges at St. Michael	49
Tonnage of river boats and barges arriving at St. Michael	59,706
Total tons of merchandise shipped to Yukon, Koyukuk, and Tanana rivers (nearly)	26,000
Passengers landed from ocean steamers	1,060
Passengers sent out on ocean steamers	2,163

Many passengers, probably a majority, come into the Yukon Basin via Skagway and Dawson, and leave via St. Michael, thus being able to arrive by water earlier and leave later.

Following is a list of steamers of the Northern Navigation Company, which are actually in commission and being employed during this (1909) season:

Name.	Length.	Breadth.	Draft, loaded.		Tonnage.	
					Gross.	Net.
	Feet.	*Feet.*	*Ft.*	*in.*		
Sarah	222.8	42.2	5	10	1,211	639
Susie	222.8	42.2	5	10	1,211	639
Hannah	222.8	42.2	5	10	1,211	639
Louise	165.0	36.5	5	0	717	384
St. Michael	176.1	35.4	4	9	718	409
D. R. Campbell	176.1	35.4	4	9	718	409
Seattle No. 3	150.0	32.5	4	10	548	326
Florence	101.0	22.0	3	6	90	51
Herman	155.0	36.0	5	9	456	164
Koyukuk	120.5	24.5	2	4	286	199
Lavelle Young	140.0	32.0	5	2	506	396
Tanana	149.6	30.4	3	3	496	372
Delta	120.3	26.0	2	10	293	237
Reliance	120.0	25.6	2	4	291	171
Schwatka	146.0	30.0	3	6	484	291
Oil City	176.1	35.4	4	9	718	400
Leota	50.5	16.0	2	6	36	24

This company had 28 river barges in commission at this time (July 10, 1909), with a combined net tonnage of about 11,000 tons.

The following vessels are operated during the present (1909) season by the North American Transportation and Trading Company:

	Gross tons.		Gross tons.
C. H. Hamilton	819	Evelyn	419
J. P. Light	718	Also 9 barges with a combined gross tonnage of	6,500
John J. Healy	450		
P. B. Weare	400		

In addition to the above named the company has 5 other vessels, with a total gross tonnage of 3,564, at St. Michael, ready for use.

Besides the vessels of the two above-named companies, there are some 10 or 12 small steamers, owned by various parties, which ply on the Yukon and its tributaries.

There is a considerable amount of merchandise shipped to the Yukon Basin in Alaska by way of the White Pass and Yukon route, by way of Skagway, White Horse, and Dawson. Nearly all live stock is shipped in by this route, about 600 head of cattle and sheep every five or six weeks during the season.

The White Pass and Yukon Company run steamers between White Horse and Dawson, a distance of 460 miles. The following is a list of the steamers employed this season, with their "general" and "deepest" draft and tonnage, as furnished me by the agent.

Name.	Draft.		Tonnage.[a]
	General.	Deepest.	
	Inches.	*Inches.*	
White Horse	30	48	215
Dawson	29	48	225
Selkirk	30	48	215
Bonanza King	36	48	120
Caska	33	48	150

[a] Carrying capacity in freight.

In addition to the above the company has barges with a combined gross tonnage of about 20,000 tons.

Passengers brought by the steamers of this company to Dawson bound to the Yukon Basin in Alaska during the open season, are taken from Dawson by the steamers of the Northern Navigation Company. Freight is handled by the same companies. The boundary line is about 88 miles below Dawson; the Canadian customs inspection takes place just above the boundary line.

A comparison of statistics for several years past shows a decrease in quantity and value of shipments to the Yukon Basin, but there will probably be a very slow and gradual increase as the country is developed.

RECOMMENDATION.

I examined in passing up and down the river every point where daymarks have been proposed or suggested, and also considered other points where daymarks would be very useful and of great assistance to masters and pilots, and have to recommend the establishment of * * * 58 daymarks. None on the list is located between Circle and a point about 30 miles below Fort Yukon, a distance of about 115 miles, for the reason that none could be established that could in any sense be considered permanent. To have aids of any value on the flats would require their reestablishment each season and a party in the field the entire season to change them as the channel changed. (See description of flats on pages 709 and 710.)

On that portion of the river and in the locality where I recommend the establishment of daymarks the channels and crossings may be considered as fairly permanent, but some annual expense would be necessary to reset some and paint all. For estimate, see page 716.

KIND OF DAYMARK; CONSTRUCTION; LOCATION.

In the copies of correspondence furnished me by the Board requesting, and relative to, the establishment of aids on the Yukon, the term "diamond board" is used to indicate the kind of daymark. The term was probably carried to Alaska by old pilots from the upper Mississippi; but I do not think the ordinary "diamond board" would be large enough or useful and permanent as the daymarks I have to suggest; a tripod with its legs well anchored and a center pole extending about 6 feet above the head of the tripod, this pole to have six cross boards nailed to it, three in one plane and three in a plane at right angles to the other, those in different planes to alternate; the boards to be 4½ to 5 feet in length, 10 inches in width, and ¾ of an inch thick, and to be painted on both sides with two coats of paint before being put in place. In some cases the center post may be shorter and some boarding be put from leg to leg of the tripod; which, in all cases, should have braces or tie pieces from leg to leg. At a number of points where daymarks are recommended trees will be found in the right location and one can be trimmed up (the top cut off) and boarded, thus making an excellent station; at other points a single post erected, well braced and boarded, will be all that is required. No better timber could well be obtained for posts or tripod legs than the spruce trees found along the river banks. They grow very straight and can be obtained of almost any desired length. Any party erecting the daymarks would find it much cheaper, a saving of transportation and labor, and more convenient, to cut spruce trees as needed for posts or tripod legs. Those for the posts or tripods below Andreafsky should be cut above that point, as there is little spruce growth below it.

The boards necessary for the daymarks can be bought in Dawson or Fairbanks at $80 to $90 a thousand feet; or arrangements might be made to have them gotten out at Fort Gibbon at a cost of about $50 a thousand feet.

Freight rates from Seattle to Tanana are $40 a ton, and I think it would be a useless expense to buy lumber in Seattle and ship it to the Yukon, and probably be at a further expense in having it shipped farther up the river.

As on the Mississippi River, so it will be on the Yukon; aids or daymarks can not always be placed in the most desirable or best position, but if near it the pilots soon learn to use them as well as if the marks were in exactly the correct positions. It is not ranges (except in one case) that are recommended by me or requested by the navigation companies—only single daymarks.

In nearly every case where a daymark is recommended it would be necessary to clear away a considerable amount of small timber and undergrowth in order to place the mark well back from the river bank.

Owing to the nature of the ground where many of the daymarks are required and to the fact that it only thaws each summer to a depth of 2 or 3 feet, great care should be taken in putting the posts in the ground, and in a large number of cases it would be far better to erect

REPORT

OF THE

COMMISSIONER OF FISHERIES

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COMMISSIONER OF FISHERIES.

Department of Commerce and Labor,
Bureau of Fisheries,
Washington, December 6, 1909.

Sir: I have the honor to submit herewith a report of the operations of the Bureau of Fisheries for the fiscal year ended June 30, 1909.

PROPAGATION OF FOOD FISHES.

EXTENT OF THE WORK.

In its important work of stocking the public waters with food fishes, and of furnishing food and game fishes for private streams, lakes, and ponds, the Bureau has followed established methods that have had for their main object the largest results at the minimum cost. The magnitude of the operations necessitates close scrutiny of the details of the expenditures; and it is noteworthy that in the fiscal year 1909 the volume of the fish-cultural work was much larger than ever before, while the available appropriations were not increased. In other words, notwithstanding that labor and materials cost more than formerly, the Government has expended less money in order to produce and plant a definite number of food fishes. This result has been achieved by greater efficiency and zeal on the part of employees and by extension of the fields of operation.

The fish hatcheries operated in 1909 numbered 35 and the subhatcheries, auxiliaries, and egg-collecting stations numbered 84; these were located in 32 States and Territories. The regular hatcheries may be classified as follows with reference to the fishes propagated: Marine species, 3; river fishes of eastern seaboard, 5; fishes of the Pacific coast, 5; fishes of the Great Lakes, 7; fishes of the interior regions, 15.

In the following table the output of the hatcheries is summarized by species. From the aggregate figures given it will be seen that a new record has been made in the Bureau's fish-cultural work, the total output of 3,107,131,911 fish and eggs being 235,675,000 more than in 1908, the best previous year.

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SUMMARY OF DISTRIBUTIONS OF FISH AND EGGS, FISCAL YEAR ENDED JUNE 30, 1909.

Species.	Eggs.	Fry.	Fingerlings, yearlings, and adults.	Total.
Catfish			562,580	562,580
Carp			7,807	7,807
Buffalofish			57,400	57,400
Shad	266,000	57,112,000		57,378,000
Whitefish	142,220,000	277,445,000		419,665,000
Chinook salmon	38,859,265	20,177,286	75,429	59,111,980
Silver salmon	272,000	9,470,925		9,742,925
Blueback salmon	100,000	93,409,496		93,509,496
Humpback salmon		10,000	100	10,100
Steelhead trout	271,468	2,181,413	46,500	2,499,381
Rainbow trout	286,150	292,408	2,026,463	2,605,021
Atlantic salmon		647,790	24,435	672,225
Landlocked salmon	570,000	793,550	237,896	1,601,446
Blackspotted trout	602,820	5,993,943	2,049,395	8,646,158
Loch Leven trout			70,000	70,000
Lake trout	22,806,000	27,188,177	1,345,100	51,339,277
Brook trout	905,000	5,821,322	3,723,489	10,449,811
Sunapee trout		229,736		229,736
Scotch sea trout			47	47
Grayling	350,000	808,000	6,032	1,164,032
Pike			44,200	44,200
Crappie and strawberry bass		62,500	217,355	279,855
Rock bass			51,112	51,112
Warmouth bass			2,278	2,278
Smallmouth black bass		262,674	111,924	374,598
Largemouth black bass		32,500	540,962	573,462
Sunfish			317,888	317,888
Pike perch	457,850,000	187,050,000		644,900,000
Yellow perch	10,000,000	213,610,410	50,873	223,661,283
Striped bass		4,518,000		4,518,000
White perch	24,500,000	318,760,000	2,650	343,262,650
Yellow bass		136,938	1,225	138,163
Smelt	24,700,000	9,400,000		34,100,000
Freshwater drum			25,000	25,000
Cod		153,536,000		153,536,000
Flatfish		786,626,000		786,626,000
Pollock		30,890,000		30,890,000
Lobster		164,509,000		164,509,000
Total	724,558,703	2,370,975,068	11,598,140	3,107,131,911

One of the most noteworthy aspects of the fish-cultural work is the increased interest in the utilization of private or semiprivate waters for rearing food and game fishes. This interest appears in all parts of the country and among all kinds of people, and is evidenced by the demands made on the Bureau for desirable fishes for stocking purposes. During the year applications were received for fish for planting in 10,112 different bodies of water, an increase of 25 per cent over 1908 and of more than 400 per cent over 1900.

REVIEW OF OPERATIONS.

In considering the results of the fish-cultural work, it should be borne in mind that the conditions which determine success or failure often depend largely on physical and meteorological factors operative during the comparatively short spawning season for the different species. Storms, freshets, drought, abnormal heat and cold, and other natural agencies may render abortive the most thorough preparations and most active efforts at particular stations. The most serious drawbacks, however, are the artificial conditions—dams, lines of nets, etc.—that prevent the spawning fish from reaching their spawning grounds in adequate numbers.

There was a further marked decrease in the collection of shad eggs and in the resulting output of fry. The lack of success at the stations on the Potomac and Susquehanna rivers can be accounted for only by the absence of protective measures that would insure the arrival of a fair percentage of the migrating fish at the spawning grounds. In sharp contrast to the results in Maryland and Virginia was the record at the North Carolina shad hatchery on Albemarle Sound, where the egg collections were larger than in any previous year except 1901. This outcome is clearly attributable to the workings of the recent law that regulates fishing in the interests of conservation.

The hatching of white perch for the Chesapeake basin was somewhat more extensive than in 1908, while the yellow-perch work in the same region showed a falling off owing to the failure to obtain eggs from the first run of fish on the Susquehanna River, where the season opened much earlier than was expected.

The artificial propagation of the Atlantic salmon at the station near the Penobscot River in Maine was much less successful than formerly. The conditions in this stream are most unfavorable for fish and fish culture; and it is not improbable that the long-continued efforts of the Bureau to maintain the run of salmon in the only remaining salmon stream on our Atlantic coast will prove unavailing.

Very boisterous and wintry weather during November interfered with the daily trips of the Bureau's vessels to the cod-fishing grounds and often prevented the launching of dories containing spawntakers, with the result that the cod operations fell off about 40 per cent as compared with 1908. The Norwegian method of obtaining eggs from brood cod was followed at the Woods Hole (Massachusetts) station on the same scale and with the same success as heretofore. The unprecedentedly large production of winter flounder, or flatfish, was chiefly due to the inauguration of the cultivation of this species at the Boothbay Harbor (Maine) station. The combined output of lobster fry at the three marine stations was about 10 per cent smaller than in the previous year, while the hatching of pollock at the Gloucester (Massachusetts) station was much less extensive.

The output of whitefish, while less than in 1908, was fairly satisfactory. Egg collecting in the Detroit River, one of the most productive fields, was seriously interfered with by extensive government improvements which necessitated much blasting. The take of eggs at the western end of Lake Erie was larger than ever before, and it is thought that the unusual success in this field may have been due to the capture there of fish that under ordinary conditions would have spawned in the Detroit River.

The output of lake trout and pike perch was larger than ever before. An important factor in the collection of lake-trout eggs was the cooperation of fishermen operating gasoline boats, who took the eggs and delivered them free of charge to the Bureau's agents. Favorable weather and the active cooperation of Pennsylvania and Ohio conduced to the unusually large output of pike perch.

The drought seriously affected the collection of salmon eggs in the Pacific States. The run of chinook salmon in the Sacramento River appeared to be as large as usual, and the catch of fish for commercial purposes was good, but owing to low water the fish could not reach their accustomed spawning grounds in the McCloud River and in consequence deposited their eggs below the place where the Bureau had constructed racks for their interception. When the heavy rains finally came, the rack in the McCloud was broken, and three men who were working on the rack throughout the night to keep it free from leaves and other débris were thrown into the raging torrent and miraculously saved from drowning. It is estimated that the fish that had congregated below the rack would have yielded 8,000,000 eggs. The output of chinook salmon was much less than in 1908, as was also that of silver salmon and humpback salmon; but a record was established for the blueback, sockeye, or red salmon, owing to the successful opening of the new hatchery at Afognak (Alaska), whose initial output was over 39,000,000 fish. An experiment with the sockeye which may lead to an important outcome was made on Puget Sound. Five hundred fish caught in traps at Point Roberts and donated to the Bureau by one of the fishing companies were towed in a live-car to an adjacent creek and held for the ripening of their eggs. Sufficient eggs were collected to warrant the belief that it will be possible to propagate large numbers of this most valuable species by impounding in fresh water salmon caught in the commercial fishing.

With regard to the cultivation of the fishes of the interior waters, it may be noted that the season showed a marked increase in the output of catfish, blackspotted trout, and landlocked salmon, the work with the last-named species establishing a record as a result of improved methods at Grand Lake Stream. The production of brook trout from the eggs of wild fish fell off in both New England and Colorado as the result of drought, and, as in previous years, the demands for this fish could be met only by the purchase of large numbers of eggs from private hatcheries. There were no material changes in the distribution of the various other fishes that are regularly handled.

Species whose cultivation was undertaken for the first time in 1909 are the smelt, the white bass, and the yellow bass. The smelt (*Osmerus mordax*) is one of the most popular food fishes of the New England States, in coast waters, in streams, and in lakes. Preliminary cultural operations in connection with the Green Lake (Maine) station resulted in the collection of 35,610,000 eggs, and from the experience gained it is apparent that artificial propagation may be conducted on a large scale and that the eggs may safely be shipped for long distances. Besides its excellent edible qualities, the smelt is valuable for planting in lakes containing trouts and landlocked salmon as a food for those fishes. Experiments in the propagation of the white bass (*Roccus chrysops*) have begun at the Mammoth Spring (Arkansas) station, and the indications are that work on an extensive scale is possible. The yellow bass (*Morone interrupta*) has been successfully handled at the same station, where it has been demonstrated that the fish will reproduce naturally in artificial ponds, and also that the eggs may be taken and fertilized artificially; the incubatory period is five days in a water temperature of 59° F.

The important work of rescuing fishes from the sloughs formed by the overflows of the Mississippi and Illinois rivers has been conducted under favorable conditions. Large numbers of valuable food fishes have been restored to the rivers, and many of the younger fish have been utilized for stocking public and private ponds and streams throughout the country. Operations of a similar nature were undertaken on the Chesapeake and Ohio Canal in the fall of 1908, on the occasion of the annual emptying of the canal. As the water falls the fish that have entered the canal from the river collect in the deeper places, where they would eventually be destroyed; and to these points the Bureau sent seining crews, which collected the fish and transferred them to the adjacent parts of the Potomac. About 75 miles of the canal were thus covered, and 47,674 food fishes, consisting mostly of black bass, crappie, sunfish, rock bass, warmouth bass, catfish, and suckers, were saved. The work, however, was less successful than was anticipated, for the reason that persons living along the line of the canal were permitted to seine on some of the best grounds before the Bureau's men arrived.

CONSTRUCTIONS AND IMPROVEMENTS AT HATCHERIES.

The facilities for lobster culture at the Boothbay Harbor (Maine) station have been greatly increased by the purchase of a site near Pemaquid Harbor and the construction thereon of a lobster pound, in which egg-bearing lobsters may be safely kept pending the hatching season. This will permit the Bureau to collect seed lobsters as opportunity is afforded throughout the year and hold them in large numbers instead of having to depend, as heretofore, on possible collections from fishermen immediately before the hatching season. A noteworthy increase in the output of the station should result from this improvement. At the hatchery the buildings have been put in good condition, and a substantial coal wharf has been built.

The work at the Green Lake (Maine) station has in the past been seriously interfered with by a lack of convenient means of communication. The station has heretofore been reached only by expensive, unreliable, and generally unsatisfactory boat service. To obviate this difficulty, the construction of a road from the hatchery to the public highway was undertaken and is now well advanced to completion.

Owing to an insufficient water supply at the St. Johnsbury (Vermont) station, trout culture at that place has been restricted. Property at Holden, Vt., has been acquired for the purpose of establishing a trout hatchery to be operated as an auxiliary of the St. Johnsbury station. The tract comprises about 24 acres and appears to have all the requisite conditions.

At the Erwin (Tennessee) station 14.8 acres of land have been purchased in order to straighten the boundary line and eliminate certain objectionable features which impaired the usefulness of the station; and at the Cold Springs (Georgia) station 60,000 square feet of adjoining land, containing a dwelling, have been purchased to meet the growing needs of the hatchery.

The water supply at the Neosho (Missouri) station has been falling off for a number of years, and the operations have been curtailed in consequence. To rectify this a new source of supply was acquired, and a pipe line 12 inches in diameter and 11,800 feet long has been laid to connect it with the station. It is believed that a marked increase in the efficiency of the station will ensue.

The basement of the hatchery at Duluth, Minn., has been enlarged, raised, and equipped with new troughs, so that the capacity of the plant is nearly doubled. The flume and intake crib have been reconstructed and improved.

The pond system at the Mammoth Spring (Arkansas) station has been extensively enlarged and improved. At the Bozeman (Montana), Leadville (Colorado), Manchester (Iowa), White Sulphur Springs (West Virginia), and Wytheville (Virginia) hatcheries only minor expenditures were made from special appropriations, chiefly for repairs to buildings and improvements to water-supply systems.

It was expected that the salmon hatchery at Afognak, Alaska, would be completed during the year, but owing to the rigors of the climate, the difficulties in the way of transporting supplies and materials, and the lack of efficient help the construction stage is not yet passed, although the hatching of fish has begun. Gratifying progress has been made in building, racks have been put in, a heating plant has been installed, and the work of finishing the hatchery, residence, mess house, quarters, tramway, roads, etc., is proceeding as expeditiously as possible.

At Yes Bay, Alaska, a telephone line has been run between the station and the boat landing, a distance of 17 miles, which will be of great assistance in operating the hatchery and has long been needed. A good foundation for racks, 8 feet wide and 250 feet long, has been made of heavy timbers, plank, rock, and gravel across the river at the lower end of the island.

FISH-CULTURAL RELATIONS WITH FOREIGN COUNTRIES.

For many years the Government of New Zealand has been introducing American fishes into waters originally deficient in desirable food and game fishes. The experiments have been addressed largely to the salmons, trouts, and whitefishes, and the Bureau has made many consignments of the eggs of these fishes to this distant colony. The results of the introduction of the rainbow trout were manifested at an early date, and it has long been known that New Zealand affords the best rainbow-trout fishing to be had anywhere in the world; over 40,000 pounds have been taken by anglers in one season from two small lakes, and the value of this species to the colony for sport and food is becoming greater each year. It is only recently, however, that the outcome of the transplanting of other important species has been seen. From information communicated by the fish commissioner of New Zealand, it appears that the blueback or sockeye salmon has become established in some streams, and that the chinook salmon, resulting from eggs sent from the Bureau's McCloud River station in 1901 and subsequent years, appeared in certain rivers in considerable numbers in 1908 and 1909 and has already become the subject of artificial propagation, 238,000 eggs being collected in 1909.

Dr. Gregory Antipa, inspector-general of fisheries in Roumania, has notified the Bureau of the desire of the Roumanian Government to present to the United States lots of young sturgeon from the Black Sea and Danube, with a view to their cultivation and the ultimate stocking of suitable east-coast rivers therewith. The condition of the sturgeon supply in all parts of the United States is most unsatisfactory, and the commercial extinction of the sturgeon in most streams is only a matter of a short time unless radical protective measures are taken by the various States. The efforts of the Bureau to propagate the native sturgeon on several of the leading rivers have been unfruitful, owing to inability to collect the eggs. The importation of new species is therefore well worthy of a trial. Several of the Roumanian sturgeons are most desirable for their flesh and eggs, and their successful introduction to our waters would prove a great boon.

In response to requests reaching the Bureau through the Department of State, fish ova to the number of 568,150 have been donated to foreign countries, as follows:

Country and species.	Number.
Argentina:	
Blueback salmon	100,000
Brook trout	50,000
Chinook salmon	200,000
Lake trout	50,000
Landlocked salmon	15,000
Rainbow trout	25,000
Silver salmon	92,000
France:	
Brook trout	10,000
Lake trout	10,000
Germany:	
Rainbow trout	16,150
Total	568,150

Through the courtesy of the Canadian fishery authorities the Bureau, as heretofore, has maintained at Rossport, Ontario, as an adjunct of the Duluth (Minnesota) hatchery, a station for the collection of eggs of the lake trout.

BIOLOGICAL INQUIRIES AND EXPERIMENTS.

OYSTER INVESTIGATIONS AND SURVEYS.

The field work connected with the oyster-planting experiments in Louisiana was brought to a conclusion in January, 1909, and a full account of the results is in course of preparation for publication. As indicated in a previous report, the Bureau's efforts have met with an unusually prompt commercial response in Barataria Bay, which was totally unproductive of oysters when the work began, in January, 1906. At the end of the first year the experimental beds showed so clearly the feasibility and profitableness of oyster culture that in 1907 there were issued by the State 64 leases, covering 700 acres of barren bottom, and at present there are in force 77 leases, covering 906 acres. None of these private holdings became productive until 1908, but in that year there were shipped to market, from waters that previously had produced nothing, 97,090 bushels of oysters, valued at $59,748. These oysters were of high quality and were in steady demand in New Orleans, where oysters from the natural reefs could hardly be disposed of at one-fourth the price.

As an immediate result of this work, the State received during the year an income that exceeded the amount expended by the Bureau in all the experiments in this section. When the grounds at present under lease become fully productive, and especially when the other available bottom in the bay is acquired for planting purposes, the State's revenue from this source will be largely augmented and the income of the planters will be increased several times. It is gratifying to the Bureau that the zeal with which the people of Louisiana have acted on the information furnished by the Government has resulted in the establishment of a profitable industry among an industrious population of small means.

The experiments in St. Bernard Parish, especially in False-mouth Bay, were equally successful, and thousands of acres there have been shown to be suitable for oyster culture. Owing to the isolated situation of the region, however, the field is less favorable for small operators, and developments will probably be in the hands of persons financially able to take large leases.

Barataria and False-mouth bays alone, though producing nothing when the experiments were undertaken, are capable, if properly utilized, of yielding a quantity of oysters equal to the entire output of Louisiana at the present time.

The oyster-fattening experiments at Lynnhaven Bay, Virginia, have been more satisfactory than in the preceding year, but the quantity of oysters fattened was less than in 1907. The difficulties encountered in this work, which is both commercially important and unique, have been many, and it is evident that some of them are not yet overcome. Notwithstanding the work of many investigators, both in this country and abroad, knowledge of the feeding conditions of oysters is very imperfect, and it is probable that the present experiments may have to await a more thorough understanding of underlying principles. The development of a certain and effective means whereby oysters can be fattened for the market is of highly practical importance to the oyster industry.

The Bureau has continued the cooperation with the Coast and Geodetic Survey and the Maryland Shellfish Commission in the survey of the oyster beds of Maryland, and the work should be practically completed during the fiscal year 1910. This oyster survey is the largest, most accurate, and most elaborate work of the kind ever undertaken.

In response to the request of the Virginia authorities, the Bureau at the end of the fiscal year entered on a survey of the natural oyster beds of the James River to determine accurately their present conditions and prospects. The location, condition, and administration of these beds has been a matter of controversy ever since the present boundary lines were established, and it is hoped that the work now underway will furnish data for such legislative and administrative action as may be necessary to secure their full value to the State and its citizens.

INVESTIGATION OF FRESH-WATER MUSSELS.

The extensive fishery and the important manufacturing interests dependent on the pearly fresh-water mussels of the Mississippi basin and other regions have induced the Bureau to undertake a comprehensive study of the biology of these mollusks and the physical characters of the waters they inhabit. The investigation is timely because of the serious depletion of the supply owing to the great demand for the shells for button making and to the indiscriminate waste in hunting for pearls. The streams to which particular attention has been given with reference to the abundance and distribution of the useful mussels are the Mississippi in Iowa and Wisconsin, the Illinois, the Iowa, the Kentucky, the Maumee, the Minnesota, the Ohio, and the Wabash. In this work the Bureau has had the active cooperation of professors in the universities of Iowa, Minnesota, Missouri, and Vermont, and of other educational institutions, as well as persons associated in a practical way with the mussel fishery and pearl-button industry. Experiments in the artificial propagation of mussels have been continued, and a large number of fishes have been infected with larvæ of several species of mussels; through the courtesy of the university authorities this important work, begun in the field in autumn, was conducted during winter and spring in the laboratories of the University of Missouri.

Various available sites in the upper Mississippi basin have been examined with a view to locating the biological laboratory whose establishment was recently authorized by Congress. Among the places visited by representatives of the Bureau were Muscatine, Fairport, Davenport, Clinton, and Comanche, in Iowa; La Crosse, in Wisconsin; Winona and Homer, in Minnesota; Rock Island, in Illinois; and Terre Haute and Vincennes, in Indiana. After a careful consideration of the advantages and disadvantages offered by the different places, a location at Fairport, Iowa, was found to be the most suitable and it has accordingly been secured. The site comprises 60 acres of elevated land directly on the bank of the Mississippi. This station will be devoted to the study of all problems connected with the aquatic fauna of the Mississippi Valley, but it will be particularly concerned with the cultivation and preservation of the mussels in the interests of the pearl-button industry.

EXPERIMENTS IN SPONGE CULTURE.

The Bureau is gratified to announce the successful outcome of experiments in sponge culture in Florida, and will shortly make public a detailed account of the work that has extended over a series of years. The recent progress has been such as to warrant the Bureau in recommending sponge culture as a feasible commercial enterprise, and it is understood that a private company has already been organized to conduct sponge-cultural operations following the methods developed and made known by the Bureau. During the year, sponge cuttings grown at the experimental grounds in Cape Florida Channel have, at the end of twenty-nine months, attained an average weight of about 1.25 ounces, the maximum being nearly 2 ounces and the minimum about 0.75 ounce after perfect cleaning and thorough drying. The growth in Anclote Channel was approximately equal to this, but the cuttings at Soldier Key grew comparatively little. It is evident that factors of environment not yet fully understood have considerable influence on both the quality and the rate of growth of the sponges; enough, however, is known to justify the belief that under proper state regulation and protection very important economic results must come from utilization of barren grounds for sponge planting, while at the same time the stability of the sponge crop will be assured.

STUDY OF FISH DISEASES.

The Bureau has continued to give attention to the diseases to which fish, particularly when under domestication, are liable, and during the past year has devoted special consideration to the occurrence of cancers and other tumorous growths. Tumors in fish have been known for many years, and the Bureau has from time to time collected specimens of various kinds of tumors from different species of fish. Owing to the activity that has characterized the investigation of cancer during the past ten years, cancer in the lower animals, and in fact in all the vertebrates, becomes a subject of great interest.

Certain types of cancer appear to be more frequent than others in domesticated fish; and cancer of the thyroid gland has been observed at various times in trout and salmon at government and other hatcheries. Of late the disease seems to be on the increase, and the Bureau has undertaken a thorough and systematic investigation of the entire subject of cancer in fish, and to this end has availed itself of the services of the director of the New York State Cancer Laboratory, who will pursue his studies in conjunction with the regular work of that institution. The Forest, Fish, and Game Commission of the State of New York also will cooperate in this work.

The inquiries already made have shown that the subject is very important and will require thorough study covering a considerable period of time. Careful investigation has been made in two localities where the disease is so prevalent as to constitute an epidemic; and the work will be extended so as to include a systematic examination of wild fish in open waters as well as the young and adult fish in government, state, and private hatcheries. At Buffalo, N. Y., where it is proposed to conduct experiments on fishes, arrangements have been made for the installation of two aquaria on the closed-circulation plan, with full provision for refrigeration and aeration of the water. The Bureau is fully alive to the far-reaching importance of this investigation, and will devote every energy and facility at its disposal for the prompt and thorough elucidation of the problems of the cause and prevention of this most serious malady.

OTHER INQUIRIES AND EXPERIMENTS.

It has long been a mooted question whether the steelhead trout and the rainbow trout are different species or the same species with somewhat different habits. A special study of these fish in their home waters has been undertaken. The evidence thus far obtained points to the specific identity of the fish. The question is not without its practical bearing in fish culture, and the inquiry will soon permit a definite conclusion to be reached.

Studies of the physiology of the Pacific coast salmons have been continued. A field party spent the entire fishing season on the Columbia River, obtaining much information and collecting material for use in laboratory chemical analyses. In conjunction with this inquiry, a large amount of data was gathered relative to the catch of salmon in the wheel fishery.

The systematic examination of the interior waters of the country with reference to their biological and physical characters and to their present and prospective fish life has been continued. This season parties have had under investigation Sebago Lake and connecting waters in Maine, Lake Champlain in Vermont and New York, and certain small lakes in Wisconsin. The work in Wisconsin, as referred to in the report for last year, has been in cooperation with the State Geological and Natural History Survey, and has been addressed particularly to the oxygen content of the water at different depths and its relation to geographic and bathybial distribution of the lake trout, whitefish, cisco, muskallunge, and other fishes. The results already attained have an important bearing on the fish-cultural operations of the Bureau and of the various States.

Since the autumn of 1907 the steamer *Albatross* has been employed in conducting a survey of the fishing grounds and aquatic resources of the Philippine Islands. All parts of the archipelago have been visited, extensive collections have been made, and much information has been obtained regarding the conditions and development of the commercial fisheries, the fish trade, and collateral branches. This work was interrupted for several months while the *Albatross* was taken to Hongkong to undergo extensive repairs to machinery and rigging made necessary by the hard and continuous service to which the vessel had been subjected. The survey will be brought to a close in 1910 and the vessel will return to the United States.

In July, 1908, the schooner *Grampus* was employed for several weeks in investigations pertaining to the animal life of the Gulf Stream off southern New England. Collections were made with surface and deep-sea apparatus, and many soundings and temperature observations were made at various depths.

MARINE BIOLOGICAL LABORATORIES.

The marine biological stations of the Bureau at Woods Hole, Mass., and Beaufort, N. C., primarily established and maintained for study and experimentation in the interests of the fisheries and fish culture, have as usual been resorted to by competent investigators from all parts of the country. While the Bureau provides ample facilities for qualified students and does not attempt to dictate the scope and character of their researches, it is noteworthy that a large percentage of the men of science who avail themselves of the laboratory privileges are engaged in work having more or less direct relation to practical questions, and in the past year an unusual amount of attention was given to subjects having an immediate economic bearing on the commercial fisheries and the cultivation of marine creatures.

THE FISHING INDUSTRY.

STATISTICS AND METHODS OF THE FISHERIES.

In the spring of 1909 the methods, apparatus, extent, and condition of the shad and alewife fisheries of Chesapeake Bay and tributaries were investigated by the steamer *Fish Hawk* and field agents. Each piece of apparatus set for shad and alewives was located on a chart, and arrangements were made to obtain statistics of the investment, catch, etc., for the season of 1909. The inquiry was still in progress at the close of the fiscal year. The number of pound nets and other fishing appliances in the Chesapeake basin has become so large that the movements of the anadromous fishes to their spawning grounds is seriously interfered with, and both natural and artificial propagation is curtailed to a degree that is most alarming. The downward trend of the fisheries and its cause have been repeatedly pointed out in the Bureau's reports, but the States interested have taken no action in the matter. This inquiry has been made in order to afford authentic data with which to demonstrate the urgent necessity for adequate legislative measures.

The local agents at Boston and Gloucester have collected statistics of the quantity and value of the fish landed at these ports by American fishing vessels. The returns have been published as monthly bulletins and distributed to the trade, and have also been issued as an annual bulletin. These fisheries are very valuable and represent about seven-eighths of the offshore food-fish fisheries of the Atlantic coast of the United States. The elaborate and accurate statistics of the yield have been gathered for a long series of years, and afford an invaluable basis for determining the general condition of the fish supply on the great "banks" off New England, the Canadian maritime provinces, and Newfoundland. From the following table, showing by months and species the quantity and value of the yield of these fisheries, it appears that in the calendar year 1908 there were landed over 6,600 cargoes of fish, having an aggregate weight of 181,465,000 pounds, worth to the fishermen $4,629,000. The receipts were nearly equally divided between the two ports, though at Boston practically the entire yield is landed in a fresh condition, while at Gloucester a very large percentage is salted. Compared with the previous year there is shown an increase of 7,548,000 pounds at Boston and a decrease of 17,654,000 pounds at Gloucester.

QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS LANDED AT BOSTON AND GLOUCESTER, MASS., BY AMERICAN FISHING VESSELS DURING 1908, BY MONTHS.

Month.	No. of trips.	Cod.				Cusk.				Haddock.			
		Fresh.		Salted.		Fresh.		Salted.		Fresh.		Salted.	
		Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.													
January	242	1,118,700	$45,647	....	....	168,500	$3,406	....	....	2,960,550	$101,023	....	....
February	318	1,141,400	43,060	....	....	135,700	3,762	....	....	4,962,150	118,433	....	....
March	438	2,414,400	72,047	....	....	184,300	4,690	....	....	6,053,600	129,982	....	....
April	484	1,936,200	65,266	....	....	173,300	4,118	....	....	3,527,100	109,558	....	....
May	333	2,530,900	56,251	....	....	364,300	5,830	....	....	1,579,600	50,577	....	....
June	341	3,358,600	86,036	....	....	155,000	2,566	....	....	2,397,000	63,835	....	....
July	400	3,848,400	84,020	....	....	10,200	199	....	....	2,201,300	54,092	....	....
August	304	3,244,600	72,394	....	....	21,000	351	....	....	2,875,900	67,467	....	....
September	432	3,685,800	100,294	....	....	70,000	1,063	....	....	4,857,600	90,563	....	....
October	442	2,129,500	73,001	....	....	63,500	1,216	....	....	4,119,400	108,573	....	....
November	400	1,302,300	43,708	....	....	122,500	2,189	....	....	1,886,500	62,472	....	....
December	408	1,618,400	50,097	....	....	140,800	2,814	....	....	2,393,800	71,291	....	....
Total	4,542	28,329,200	791,821	....	....	1,609,100	32,204	....	....	39,814.500	1,027,866	....	....
LANDED AT GLOUCESTER.													
January	48	53,665	1,359	123,120	$5,237	9,310	154	2,170	$54	219,366	6,597	2,300	$46
February	50	121,415	4,026	95,530	3,886	48,560	824	942	24	509,208	11,335	1,926	34
March	85	1,131,514	22,260	226,359	8,695	29,177	459	1,400	36	1,841,453	18,811	5,550	97
April	62	524,131	10,036	166,786	6,479	77,825	1,167	560	12	629,809	6,297	22,467	393
May	294	774,503	13,489	1,170,468	40,766	333,270	5,312	2,182	54	326,211	3,268	57,736	866
June	313	1,602,934	27,120	2,987,347	102,073	426,355	6,977	18,223	456	153,380	1,585	132,568	1,989
July	288	1,795,770	34,846	3,630,641	124,424	797,396	13,157	42,092	1,061	462,573	5,056	143,632	2,156
August	201	2,388,214	45,598	2,262,639	80,941	753,469	12,421	16,622	417	1,079,478	10,796	92,059	1,381
September	163	2,313,370	43,262	2,738,605	98,978	463,609	7,454	8,013	200	1,466,775	16,235	45,392	682
October	318	1,366,598	24,735	4,878,429	170,211	379,476	6,262	26,377	660	698,175	5,890	55,072	859
November	140	789,945	16,495	2,922,623	97,769	86,619	1,430	13,874	348	82,640	1,420	62,182	933
December	105	424,018	7,636	629,907	23,342	52,333	905	8,317	209	134,297	2,226	19,623	293
Total	2,067	13,286,077	250,862	21,832,454	762,801	3,457,399	56,522	140,772	3,531	7,603,365	89,466	640.507	9,729
Grand total	6,609	41,615,277	1,042,683	21,832,454	762,801	5,066,499	88,726	140,772	3,531	47,417,865	1,117,332	640,507	9,729
Grounds E. of 66° W. long	610	8,378,299	176,509	15,612,571	539,768	1,729,743	28,605	31,862	799	4,972,119	115,170	253,632	3,840
Grounds W. of 66° W. long	5,999	33,236,978	866,174	6,219,883	223,033	3,336,756	60,121	108,910	2,732	42,445,746	1,002,162	386,875	5,889
Landed at Boston in 1907	4,383	29,274,950	867,836	....	....	2,324,200	45,823	....	....	36,082,200	1,064,477	....	....
Landed at Gloucester in 1907	2,702	16,677,711	344,319	15,368,065	575,097	4,702,421	79,813	72,357	1,764	5,732,903	93,783	462,802	8,966

QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS LANDED AT BOSTON AND GLOUCESTER, MASS., ETC.—Continued.

Month.	Hake.				Pollock.				Halibut.			
	Fresh.		Salted.		Fresh.		Salted.		Fresh.		Salted.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.												
January	466,300	$17,390			79,300	$2,815			8,700	$1,365		
February	318,000	14,898			44,500	1,579			14,800	1,852		
March	423,700	12,955			35,200	1,223			34,900	3,111		
April	318,700	9,942			42,300	532			33,300	3,320		
May	858,900	12,141			123,000	1,496			13,200	1,538		
June	1,123,100	16,733			127,000	1,797			74,200	5,396		
July	690,600	9,010			468,900	6,963			10,000	776		
August	1,281,500	19,988			520,800	7,762			73,200	5,366		
September	2,158,000	27,198			1,255,500	14,262			22,100	2,190		
October	2,545,200	25,518			1,024,700	14,057			3,600	440		
November	1,444,900	31,884			1,356,200	21,643			1,700	198		
December	837,200	17,123			1,209,400	13,439			13,750	1,126		
Total	12,466,100	214,780			6,286,800	87,568			303,450	26,677		
LANDED AT GLOUCESTER.												
January	13,131	497	565	$8	7,340	131	6,610	$100	92,425	9,834	2,300	$161
February	21,080	502	650	12	5,915	138	3,805	58	356,496	29,537	1,310	92
March	7,090	66			3,320	27	7,715	116	343,827	29,868		
April	32,940	296	375	5	122,020	1,289	6,489	98	82,749	8,884	250	16
May	290,508	2,337	5,292	72	1,775,472	13,419	34,112	512	463,642	26,087	35,210	2,545
June	1,090,052	8,721	33,893	509	1,506,711	11,301	226,914	3,402	312,159	17,586	25,295	1,770
July	1,128,324	9,146	20,939	314	660,549	5,157	165,799	2,486	358,952	16,090	16,227	1,152
August	730,139	6,031	18,513	279	289,479	2,306	121,363	1,820	240,571	13,949	93,636	6,471
September	975,126	7,800	4,468	67	294,766	2,246	89,410	1,340	274,940	23,682	669,298	46,798
October	3,183,719	24,697	12,382	188	336,026	2,617	224,457	3,367	238,670	20,031	96,133	6,774
November	364,067	3,210	17,075	256	615,963	5,123	112,820	1,704	60,583	5,527	5,900	412
December	132,174	1,219	8,290	123	524,365	3,846	90,711	1,361	50,788	4,882	999	72
Total	7,968,350	64,522	122,442	1,833	6,141,926	47,600	1,090,205	16,364	2,875,802	205,957	946,558	66,263
Grand total	20,434,450	279,302	122,442	1,833	12,428,726	135,168	1,090,205	16,364	3,179,252	232,634	946,558	66,263
Grounds E. of 66° W. long.	2,074,101	19,938	92,875	1,390	302,954	2,928	426,710	6,411	2,688,073	194,509	946,050	66,227
Grounds W. of 66° W. long.	18,360,349	259,364	29,567	443	12,125,772	132,240	663,495	9,953	491,179	38,125	508	36
Landed at Boston in 1907	9,963,400	193,812			4,244,100	67,288			215,630	22,252		
Landed at Gloucester in 1907	9,616,915	119,762	213,942	3,830	16,183,699	141,528	775,961	13,710	3,077,862	247,886	903,896	73,264

Month.	Mackerel.				Other fish.[a]				Total.				Grand total.	
	Fresh.		Salted.		Fresh.		Salted.		Fresh.		Salted.			
LANDED AT BOSTON.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
January									4,802,050	$171,646			4,802,050	$171,646
February									6,616,550	183,584			6,616,550	183,584
March									9,146,100	224,008			9,146,100	224,008
April									6,030,900	192,736			6,030,900	192,736
May									5,469,900	127,833			5,469,900	127,833
June	2,529,525	$124,445	218,000	$13,987	272,000	$26,829			10,036,425	327,636	218,000	$13,987	10,254,425	341,623
July	1,836,185	103,271	32,600	1,932	785,600	57,745			9,851,185	316,076	32,600	1,932	9,883,785	318,008
August	52,400	4,888	16,000	1,180	241,800	26,404			8,311,200	204,620	16,000	1,180	8,327,200	205,800
September	800	65			176,220	8,576			12,226,020	244,211			12,226,020	244,211
October	3,400	456			6,000	716			9,896,300	223,977			9,896,300	228,977
November									6,114,100	162,094			6,114,100	162,094
December							680,000	$13,600	6,213,350	155,890	680,000	13,600	6,893,350	169,490
Total	4,422,310	223,125	266,600	17,099	1,481,620	120,270	680,000	13,600	94,713,080	2,534,311	946,600	30,699	95,659,680	2,565,010
LANDED AT GLOUCESTER.														
January					2,864,000	74,300	2,314,200	26,470	3,259,237	92,872	2,451,265	32,076	5,710,502	124,948
February									1,062,674	46,362	104,163	4,106	1,166,837	50,468
March									3,356,381	71,491	241,024	8,944	3,597,405	80,435
April									1,469,474	27,969	196,927	7,003	1,666,401	34,972
May			8,600	516					3,963,606	63,912	1,313,600	45,331	5,277,206	109,243
June	343,080	16,554	2,737,200	126,555	150,200	1,665			5,584,871	91,459	6,161,440	236,754	11,746,311	328,213
July	369,540	18,306	265,000	12,774	104,750	1,014			5,677,854	102,772	4,284,330	144,367	9,962,184	247,139
August	21,960	1,740	42,200	3,434	613,744	5,429	59,000	1,540	6,117,054	98,270	2,706,032	96,283	8,823,086	194,553
September					1,810,300	13,954	175,600	1,764	7,598,886	114,633	3,730,786	149,829	11,329,672	264,462
October	349,850	38,790	600	72	410	53			6,552,924	123,075	5,293,450	182,131	11,846,374	305,206
November	1,080	79	147,000	15,065	1,111,400	12,508	1,465,400	25,200	3,112,297	45,787	4,746,874	141,687	7,859,171	187,474
December					810,000	22,160	3,934,596	69,028	2,127,975	42,874	4,692,443	94,428	6,820,418	137,302
Total	1,085,510	75,469	3,200,600	158,416	7,464,804	131,078	7,948,796	124,002	49,883,233	921,476	35,922,334	1,142,939	85,806,567	2,064,415
Grand total	5,507,820	308,594	3,467,200	175,515	8,946,424	251,348	8,628,796	137,602	144,596,313	3,455,787	36,868,934	1,173,638	181,465,247	4,629,425
Grounds E. of 66° W. long	1,690,040	125,053	2,989,800	150,096	3,540,444	95,147	8,194,196	131,298	25,375,773	757,859	28,547,696	899,829	53,923,469	1,657,688
Grounds W. of 66° W. long	3,817,780	183,541	477,400	25,419	5,405,980	156,201	434,600	6,304	119,220,540	2,697,928	8,321,238	273,809	127,541,778	2,971,737
Landed at Boston in 1907	3,542,656	220,061	394,000	27,287	2,070,200	162,457			87,717,336	2,644,026	394,000	27,287	88,111,336	2,671,313
Landed at Gloucester in 1907	548,370	27,230	5,991,860	444,771	7,517,550	144,313	15,614.112	271,754	64,057,431	1,198,634	39,402,985	1,393,156	103,460,416	2,591,790

[a] Includes herring from Newfoundland (3,534,000 pounds frozen, $94,360, and 8,194,196 pounds salted, $131,298).

The most important of the food fishes taken in the offshore vessel fisheries is the cod, of which 63,447,000 pounds were taken on the Atlantic coast and 14,594,000 pounds on the Pacific coast in 1908, the value of the combined catch being over $2,240,000. In 1904, 1905, and 1906 some large fares of cod were taken with purse seines in the vicinity of Sable Island, but in 1907 this method of capture was not successful, and in 1908 the purse seines gave way to hand lines and trawls.

The haddock fishery continues to have the most improved type of vessels. While the fleet has not increased in number, the tonnage is considerably greater than formerly; and vessels of the newer pattern cruise over more ground than the others and operate double the quantity of fishing gear. Practically the entire haddock catch is landed fresh and is intended for immediate consumption. More than 48,000,000 pounds, with a value of $1,127,000, were taken in 1908, an increase of nearly 7,000,000 pounds and a decrease of $40,000 in value as compared with the previous year.

The catch of pollock for the Boston and Gloucester markets in 1908 fell below that of 1907 by nearly 8,000,000 pounds. The product of fresh and salted fish was 13,500,000 pounds, selling for $152,000. A marked change has occurred in this fishery within a few years. Formerly the fish were taken only with lines, but now a large part of the catch is made with purse seines that are thrown about the schools in shallow water off the New England coast.

The yield of halibut in 1908 was 4,125,000 pounds, valued at $298,000, a very slight decrease as compared with the previous year. Georges Bank has been more actively resorted to for halibut than any other ground off the United States coast, and it continues to be a productive ground. In 1908, however, Bacalieu Bank, lying off the eastern coast of Newfoundland, was a more prolific ground. It covers a large area, and in recent years has been extensively resorted to by our vessels. The catch of halibut on the Pacific coast exceeds that on the Atlantic by several million pounds. In addition to the large quantity taken by American vessels on various grounds in southeastern Alaska, there is a considerable amount caught by Canadian vessels and shipped into the United States.

The available supply of mackerel continues to be small, and the annual catch now is insignificant compared with that twenty-five or thirty years ago. The quantity of salt fish landed in 1908, namely, 21,267 barrels, was about 10,000 barrels less than in 1907, but over 11,000 barrels more than in 1906. The receipts of fresh mackerel were 57,566 barrels, an increase of 1,397 barrels over 1907.

The relative productivity of the fishing grounds lying off the United States coast and off the coasts of Newfoundland and the Canadian provinces is shown in the following table, which gives, by species, the quantity and value of the fish landed at Boston and Gloucester by American fishing vessels in 1908. Over 70 per cent of the entire catch was obtained on grounds lying off the United States coast—that is, west of the sixty-sixth meridian of west longitude.

QUANTITY AND VALUE OF FISH LANDED BY AMERICAN FISHING VESSELS AT BOSTON AND GLOUCESTER, MASS., IN 1908, FROM GROUNDS OFF THE COASTS OF THE UNITED STATES, NEWFOUNDLAND, AND CANADIAN PROVINCES.

Species.	United States.		Newfoundland.		Canadian Provinces.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Cod:								
Fresh	33,182,828	$865,257	1,135,100	$24,268	7,297,349	$153,158	41,615,277	$1,042,683
Salted	6,219,883	223,033	3,925,014	136,581	11,687,557	403,187	21,832,454	762,801
Cusk:								
Fresh	3,334,331	60,081	....	....	1,732,168	28,645	5,066,499	88,726
Salted	108,910	2,732	3,971	100	27,891	699	140,772	3,531
Haddock:								
Fresh	42,425,206	1,001,933	....	....	4,992,659	115,399	47,417,865	1,117,332
Salted	386,875	5,889	31,713	476	221,919	3,364	640,507	9,729
Hake:								
Fresh	17,991,949	256,417	41,975	353	2,400,526	22,532	20,434,450	279,302
Salted	29,567	443	28,588	422	64,287	968	122,442	1,833
Pollock:								
Fresh	12,122,957	132,219	....	....	305,769	2.949	12,428,726	135,168
Salted	663,495	9,953	25,109	377	401,601	6,034	1,090,205	16,364
Halibut:								
Fresh	491,179	38,125	1,158,235	75,092	1,529,838	119.417	3,179,252	232,634
Salted	508	36	879,728	61,577	66,322	4,650	946,558	66,263
Mackerel:								
Fresh	3,817,780	183,541	....	....	1,690,040	125,053	5,507,820	308,594
Salted	477,400	25,419	....	....	2,989,800	150,096	3,467,200	175,515
Herring:								
Fresh	3,174,320	29,284	3,534,000	94,360	....	....	6,708,320	123,644
Salted	393,200	5,292	8,194,196	131,298	....	....	8,587,396	136,590
Swordfish:								
Fresh	1,344,410	118,006	....	....	13,444	1,627	1,357,854	119,633
Other fish:								
Fresh	880,250	8,071	....	....	....	....	880,250	8,071
Salted	41,400	1,012	....	....	....	....	41,400	1,012
Total	127,086,448	2,966,743	18,957,629	524,904	35,421,170	1,137,778	181,465,247	4,629,425

INVESTIGATION OF THE MACKEREL FISHERY.

Since early times the taking of mackerel has been one of the great high-sea fisheries of the country, but since 1886 the fishery has yielded only a comparatively small percentage of the fish caught for many years immediately preceding. It has not been determined whether the mackerel are now actually scarcer than formerly, whether they have changed their grounds, or whether the fishing methods are such as to disperse the schools and reduce the catch.

The migratory habits of mackerel continue to baffle the skill of the most experienced fishermen. Each season during the past five years a large body of mackerel has appeared off the Cape Shore in June, remaining in those waters about six weeks, then suddenly disappearing, and few fish being seen or taken during the rest of the year. In 1907 and 1908 after the disappearance of this body of fish the seining fleet spent several weeks cruising over the usual grounds with little or no success. These periods of great scarcity occurring in the middle of the season cause considerable anxiety among fishermen and owners of vessels.

The summer mackerel grounds extend from Block Island to the Strait of Canso. In their search for fish few vessels care to take the risk of being absent from the main body of the fleet more than a day or two at a time. Occasionally individual vessels will cruise in distant localities, but as a rule even the most distant ones keep in touch with the fleet.

Many theories are advanced by fishermen regarding the body of fish that suddenly leaves the coast each year. In the opinion of many fishermen the introduction of purse seines and gill nets has been instrumental in diverting mackerel from their regular course. Formerly it was the custom early in July for a large fleet of vessels fitted with hooks and lines to repair to the Gulf of St. Lawrence, where the fishery was successfully carried on until the latter part of October. The large quantity of toll bait used was no doubt the means of holding the fish on the ground. Mackerel continued to be fairly plentiful in that region until vessels ceased to fish with the apparatus mentioned and employed seines as a method of capture. Shortly after that period mackerel were less plentiful and during the past twenty years few fish have been taken in the Gulf of St. Lawrence. In the last two or three years several vessels have visited that region in the fall for the purpose of testing the ground with toll bait. The result of these experimental trips has led fishermen to believe that if toll bait were freely used it would have a tendency to attract mackerel to all the grounds along the Atlantic coast.

The movements of mackerel during the early part of the season of 1909 were different from those noticed in 1907 and 1908. Usually mackerel are first seen about the middle of March in the vicinity of Cape Hatteras; but this year, owing to the prevailing rough weather on that part of the coast where the fishery is carried on, mackerel were not reported until April 17, and few fish were taken until May 12, when four vessels landed trips in New York, immediately followed by eight other seiners capturing schools off the coast of New Jersey. In the latter part of May, few fish being found on the southern grounds, and those sighted hard to catch, the seining fleet fitted for the Cape Shore, where mackerel had been reported. A few hauls were made off that coast on June 7, and fairly good fishing was experienced for about two weeks, after which time the schools of fish suddenly disappeared. This caused most of the fleet to again visit the southern grounds, where fishing was continued until the latter part of June.

Ordinarily the vessels that carry seines capture a great many more mackerel than those fitted with gill nets, but this season, since the mackerel did not appear at the surface as in previous years, the netters did exceptionally well and landed nearly as many fish as the seining fleet.

In the spring of 1909, at the special solicitation of the Board of Trade and the Master Mariners' Association of Gloucester, Mass., the Bureau undertook an investigation of the mackerel in the interests of the fishing industry. The auxiliary schooner *Grampus* was detailed for the purpose, and an experienced mackerel fisherman was placed in charge of the inquiry, which began in April and was in progress at the close of the year. One of the main objects of the inquiry is to locate the body of fish supposed to be on grounds remote from those cruised over by the seining fleet. The apparatus for locating and making experimental catches of fish consists of gill nets and lines; tow nets are also carried for the purpose of detecting the presence of the minute crustaceans upon which mackerel chiefly subsist. The cruising will extend from Cape Henry northward along the coast to the Gulf of St. Lawrence and Labrador. The work, so far, has been chiefly on offshore grounds from Cape Henry to Cape Cod.

ALASKA SALMON SERVICE.

In the annual inspection of the salmon fisheries of Alaska, the agents visited practically all the fishing centers with the exception of arctic Alaska and parts of western and central Alaska, and obtained information regarding the condition and extent of all the other fisheries of the Territory in addition to the salmon. The agents' detailed report on the fishing industry was published in April, 1909.

The salmon fisheries in 1908 were more extensive and valuable than ever before. In taking the catch and preparing and transporting the canned, pickled, fresh, and frozen fish, 12,183 persons were employed and $9,298,800, exclusive of cash capital, were invested, and the value of the output was $10,683,051. The total quantity of salmon taken was 198,952,814 pounds, of which 125,790,470 pounds represented red salmon, 48,029,055 pounds humpbacks, 15,578,570 pounds dog salmon, 5,291,200 pounds coho or silver salmon, and 4,263,519 pounds king salmon.

Fifty canneries and 40 salting establishments were operated, and the quantity of salmon therein utilized was larger than ever before. The pack of canned salmon was 2,618,048 cases, equivalent to 2,606,972 standard cases of 48 one-pound cans each, and the salmon and salmon bellies salted aggregated 35,949 barrels and 6,247 half barrels.

In southeast Alaska it was found that trap-net fishermen in some localities were openly violating the law by failing to observe the close season, and this too at a time when the canneries were glutted and unable to handle the legitimate catch. Violations to the number of 53 were reported to the grand jury, which brought in a true bill in each instance, and the cases were tried in the district court at Skagway. The owners of the traps agreed to assume responsibility for the actions of their employees, and plead guilty, whereupon the court imposed a fine of $150 in each case. There is a healthy public sentiment in favor of the strict enforcement of laws for the protection of the salmon, and this sentiment is shared by a very large proportion of the firms and companies having money invested in the fisheries.

In the pickling of salmon bellies, there has always been a very large waste, as the muscular tissue constituting the belly, the only part utilized, represents only a small fraction of the total flesh. This waste, which has amounted to several million pounds annually, appeared to be unjustifiable, and was accordingly brought to the attention of the Secretary of Commerce and Labor with a recommendation that the practice be prohibited. The waste was held to be in violation of existing law, and its interdiction was set forth in the following circular notice to all packers of salmon in Alaska, issued by the Commissioner of Fisheries under date of April 18, 1908, and affecting the season of 1909:

> It is desired to call the attention of all packers of salmon in Alaska to section 8 of the act for the protection of the fisheries of Alaska, approved June 26, 1906, which reads as follows:
>
> "SEC. 8. That it shall be unlawful for any person, company, or corporation wantonly to waste or destroy salmon or other food fishes taken or caught in any of the waters of Alaska."
>
> The present methods of preparing the bellies of salmon for the market involve the waste of a large part of the edible portion of the fish. It is believed that this waste is contrary to the spirit and letter of the above provision. The

Secretary of Commerce and Labor, who is charged with the enforcement of the Alaska fisheries act, has notified this Bureau that the practice of curing and preserving the so-called belly of the salmon, which results in the waste of a large proportion of the edible portion of the fish, is a wanton waste within the meaning of section 8 above, and that after January 1, 1909, those who engage in this practice will be reported for prosecution, as provided for in the act.

Complaints have reached the Bureau from salmon fishermen in southeast Alaska relative to injury done to the fisheries by the discharge of sawdust and other sawmill refuse into waters where salmon run. Such materials are generally recognized as harmful to fish and fishing, and are the subjects of special laws in many States, but there is nothing in the Alaskan code to cover the case. In order to guard against the pollution of the streams and other waters of the Territory by all kinds of industrial wastes, it is desirable that proper legislation be enacted by Congress at an early date. It will be easier to keep the public waters free from noxious discharges by anticipating the industrial development than by attempting to abate nuisances after they have become established.

Nushagak and Wood rivers, in western Alaska, were closed to commercial fishing by an order of the Secretary of Commerce and Labor dated December 19, 1907, and first effective during the season of 1908. The order was as follows:

> A hearing having been given at the Department of Commerce and Labor, beginning December 16, 1907, at which all persons interested in the closing or nonclosing of Wood and Nushagak rivers, Alaska, for fishing purposes were fully heard, due notice of which was given according to law, by virtue of the authority vested in me by section 6 of "An act for the protection and regulation of the fisheries of Alaska," approved June 26, 1906, it is hereby ordered that until further notice Wood River, a tributary of Nushagak Bay, in the district of Alaska, and the region within 500 yards of the mouth of said Wood River be closed to all commercial fishing, and that all commercial fishing be prohibited in Nushagak River proper.
>
> This order becomes effective January 1, 1908.

The presence of the salmon agent in the region of Wood and Nushagak rivers for the purpose of enforcing the foregoing order made possible an experimental count of red salmon on a scale and in a manner never before attempted. In conjunction with the Alaska Packers' Association of San Francisco and the Alaska-Portland Packers' Association of Portland, the Bureau of Fisheries placed a rack across the foot of Lake Aleknagik, the first of the Wood River series of lakes, and provided this rack with tunnels or gates through which the migrating salmon had to pass to reach their spawning grounds. A daily tally was kept, and a count of the entire run was obtained in such a way as to give a figure that may be accepted as very close approximation to the actual number. A few hundred fish passed up before July 1 and several thousand during the first ten days in August, but the height of the run was from July 7 to July 29. On July 14 over 402,000 fish were counted and on the next day over 324,000. The total tally was 2,603,655 fish, which escaped the very active fishing in Nushagak Bay; in addition to these several million fish are known to have ascended other tributaries of Nushagak Bay to their spawning grounds. From the data at hand it appears that the maximum number of red salmon that entered Nushagak basin in 1908 was 13,600,000 and the minimum number was not less than 10,100,000, of which 6,400,000 fish were caught and utilized at the local canneries. Therefore, under the most favorable conditions for reproduction, 52.9 per cent of the run escaped, and under the most unfavorable, 36.6 per cent. It is the intention to continue this experimental counting of salmon in the expectation that accurate data may be obtained relative to the natural increment of the fish, so that, knowing the approximate size of the run, the minimum number necessary to maintain the supply may be allowed to escape and the remainder placed at the disposal of the fishermen.

Seven salmon hatcheries operated in 1908–9 handled 176,407,000 eggs, of which number 96,397,000 were incubated at the two government hatcheries at Yes Bay and Afognak. The fry produced by the five private hatcheries numbered 74,249,750 and by the government hatcheries 87,998,770, a total of 162,248,520. Larger results are anticipated when the new station at Afognak is fully equipped.

Other important fisheries of Alaska are the cod, halibut, herring, whale, and fur seal. A number of hitherto minor products are receiving more attention each year, and in a short time will doubtless add materially to the value of the fisheries; in 1908 flounders, pollock, rock cod, and whitefish appeared in the returns for the first time. The extent of the entire fishing industry of Alaska, as determined by the salmon agents, was as follows: Persons engaged, 13,337; investment, $10,319,784; value of products, $11,847,443.

ALASKAN FUR-SEAL SERVICE.

On the establishment of the Department of Commerce and Labor, in 1903, the Alaskan fur-seal service was transferred thereto from the Department of the Treasury, to which it had been attached for many years. In the Department of Commerce and Labor this service formed a distinct branch and was administered through the Secretary's Office until December 28, 1908, when it was transferred to the Bureau of Fisheries. The Commissioner of Fisheries has appointed a special board, composed of five members of the Bureau's staff who have personal knowledge of the Alaskan fur seals, and to this board will be assigned for consideration and recommendation all matters pertaining to the seal life on the Pribilof Islands, the blue foxes, and other animal resources on the islands, and the Government's relations to the natives and the lessees. On January 13, 1909, the Secretary, on the recommendation of the Commissioner, appointed an advisory board for the fur-seal service, consisting of Dr. David Starr Jordan, Dr. Leonhard Stejneger, Dr. C. Hart Merriam, Mr. Frederic A. Lucas, Hon. Edwin W. Sims, Hon. Frank H. Hitchcock, and Mr. Charles H. Townsend. The Government is thus enabled to avail itself of the expert knowledge possessed by these naturalists and officials, who, through visits to the seal islands and through previous duty on fur-seal commissions or in the administration of the fur-seal service, are familiar with the problems involved in the management of the seal herd and the seal islands.

From the report of the agent at the seal fisheries it appears that during the season which closed July 31, 1909, the lessees were unable to obtain the quota of 15,000 skins, for the reason that the requisite number of bachelor seals did not appear in the drives during the legal season. The total take of skins was 14,336, of which 11,022 came from St. Paul Island and 3,314 from St. George Island.

Statistics of the seals driven for killing show that on the two islands 31 and 37 per cent, respectively, of the drives were released as being too large, too small, or marked for breeders. There was a noteworthy scarcity of very small seals in the drives, even late in the season when the yearlings are expected to come in numbers.

The quota of bachelor seals to be preserved for breeding purposes was marked and released during the last week in June. The number was 2,000, half of them being 2 years old and half 3 years old.

A count of the breeding bulls between July 13 and 16 showed 1,071 with harems on St. Paul Island and 267 with harems on St. George Island, and 422 others on both islands. The average number of cows per harem was ascertained to be 42.1 on St. Paul and 34.7 on St. George.

During the season a special count of the seal herd was made by Mr. George A. Clark, a member of the fur-seal commission of 1896–97, to whom was assigned the detailed study of the rookeries in those years. His investigations in 1909, following the same methods and having the same scope, are particularly interesting and important. It appears that the fur-seal herd has undergone a heavy decline during the past thirteen seasons, as evidenced by the fact that in 1896 and 1897 there were 157,000 and 130,000 breeding females, while in 1909 there were only 50,000. This decline has been caused by the continuance of pelagic sealing, which results in the killing of the females in excess of the natural increment of young breeders. The injurious effects of pelagic sealing have greatly increased in recent years owing to the presence of a large fleet of Japanese vessels using firearms and operating throughout the season in close proximity to the rookeries, sometimes forming a close cordon through which the seals have had to pass on their way from and to the rookeries.

The fur-seal service has come under the jurisdiction of the Bureau at a time when the condition of the seal herd is worse than ever before, when the outlook is most discouraging, and when the contract for the lease of the islands for a period of twenty years must, under the law, be renewed. Under the existing circumstances the value of the franchise is greatly diminished, large financial losses may be sustained by the Government, and the perpetuity of the herd is seriously menaced. For many years the precarious condition of the fur-seal herd has been constantly brought to the attention of the Government by various persons well qualified to present the matter, and every authority has forcefully pointed out the immediate necessity of the Government's concluding some arrangement by which the slaughter of seals when away from the islands in search of food should be prevented. The net outcome of the work, arguments, recommendations, and pleas of a long procession of special commissioners, experts, and agents has been (1) the passage of a law by which American fishermen are prohibited from engaging in pelagic sealing while fishermen of all other nationalities are permitted to do so, and (2) the steady and rapid decimation of the herd, which has occurred entirely independently of the legitimate operations on the islands.

If pelagic sealing could have been stopped in 1897, the seal herd to-day would contain 300,000 breeding cows (as against 50,000, the number for the season of 1909), and the product of the hauling grounds would have risen to 50,000 skins, yielding a government revenue of $500,000, as against less than 15,000 skins and a government revenue of $143,000 for the present year. Without the drain of pelagic sealing the herd would continue to increase almost indefinitely.

The Alaskan fur seals constitute the most valuable fishery resource that any government in the world ever possessed. It is little less than a national disgrace that the herd of four to six million seals which came into our possession when Alaska was acquired from Russia and has been under our charge ever since should have been allowed to dwindle until to-day it numbers less than 150,000 of all ages. The mildest way in which to characterize the dissipation of this great source of wealth to our people and of revenue to our Government is that it is a serious indictment of our business capacity. The extent of our loss may be partially seen when it is stated that the failure to maintain the seal herd has during the last thirteen years resulted in a net loss of revenue of not less than $1,600,000, has permitted nearly 300,000 fur seals, having a market value of over $5,700,000, to be appropriated by aliens, and has encouraged those nefarious pelagic operations by which additional fur seals having a value of at least $5,000,000 have been killed at sea but not recovered; while through the slaughter of breeding females their pups—on the islands, unborn, and prospective—with a potential value of fully $20,000,000 have been sacrificed and wasted.

It is most essential to the interests of this Government and the welfare of the fur-seal herd that appropriate action be taken at once looking to the prohibition of pelagic sealing by subjects of the countries most concerned; and recommendations to this end already submitted to the Department are now renewed and strongly urged.

MISCELLANEOUS ACTIVITIES.

COOPERATION WITH THE STATES.

Active cooperation with the various States in fish-cultural and fishery work has been a feature of the Bureau's policy for many years. This cooperation in the interests of the public welfare will continue and become more effective so far as the resources and functions of the Bureau will permit.

It is noted with regret that there is a desire on the part of some States to control, curtail, restrict, and handicap, by legislative action or official regulation, the work of the Bureau in artificial propagation; and it may become necessary to resort to the courts to determine the status and rights of federal fish-culture in state and interstate waters in pursuance of acts of Congress. One of the latest exhibitions of this attitude of certain States is the case of Michigan, whose legislature has taken entirely out of the Bureau's hands the collection of eggs of the commercial fishes of the Great Lakes. No necessity for such a course was shown, and the action of the State was in opposition to the expressed wishes of the Bureau and inimical to the interests of fish preservation.

Allotments aggregating 713,391,265 fertilized fish eggs were made by the Bureau to the fish commissions of the various States, as follows:

ALLOTMENTS OF FISH EGGS TO STATE FISH COMMISSIONS, FISCAL YEAR ENDED JUNE 30, 1909.[a]

State and species.	Eggs.
California:	
Chinook salmon	32,039,265
Connecticut:	
Lake trout	300,000
Brook trout	30,000
White perch	5,000,000
Yellow perch	10,000,000
Illinois:	
Rainbow trout	50,000
Whitefish	7,000,000
Pike perch	25,000,000
Maine:	
Landlocked salmon	300,000
Brook trout	300,000
Maryland:	
Rainbow trout	50,000
White perch	2,000,000
Massachusetts:	
Rainbow trout	50,000
Michigan:	
Landlocked salmon	30,000
Lake trout	3,500,000
Pike perch	50,000,000
Smelt	22,500,000
Nevada:	
Steelhead trout	50,000
New Hampshire:	
Silver salmon	50,000
Landlocked salmon	50,000
Lake trout	300,000
New York:	
White perch	12,350,000
Lake trout	3,000,000
New York—Continued.	
Landlocked salmon	30,000
Rainbow trout	20,000
Blackspotted trout	25,000
Ohio:	
Pike perch	158,725,000
Whitefish	55,548,000
Oregon:	
Chinook salmon	6,581,000
Brook trout	310,000
Blackspotted trout	100,000
Steelhead trout	50,000
Pennsylvania:	
Pike perch	223,125,000
Lake trout	3,000,000
Blackspotted trout	25,000
Silver salmon	75,000
Whitefish	58,572,000
Vermont:	
Lake trout	400,000
Washington:	
Steelhead trout	50,000
Wisconsin:	
Lake trout	12,126,000
Whitefish	20,000,000
Wyoming:	
Grayling	350,000
Brook trout	50,000
Blackspotted trout	210,000
Landlocked salmon	10,000
Steelhead trout	60,000

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[a] Also there were allotted to California 765 crappie and strawberry bass, 3,000 bream, and 240 yellow-perch fingerlings, yearlings, and adults; to Colorado, 50,000 blackspotted-trout fry; to Minnesota, 4,420 crappie and strawberry bass and 816 largemouth black bass fingerlings, yearlings, and adults; and to New York, 200,000 brook-trout fry.

In the collection of whitefish and pike-perch eggs on Lake Erie the Bureau had the active cooperation of the Ohio and Pennsylvania fish commissions.

An act of Congress approved March 4, 1909, and effective on that date, authorized and directed the Secretary of Commerce and Labor, on the request of the governor of the State of North Carolina, to designate assistants of the Bureau of Fisheries and Coast and Geodetic Survey to cooperate with the Fish Commissioner of North Carolina in surveying and marking the fishing grounds of the State. Cooperation of a similar nature had been given by the Bureau on several occasions, but owing to the more elaborate character of the survey now required by the State and the more permanent nature of the marks to be placed on the fishing grounds, it was thought that specific authority should be obtained from Congress, that the assistance of the Coast and Geodetic Survey should be invoked, and that an appropriation covering the cost of the work should be provided. As the act carried no appropriation, it has been impossible for the Bureau to proceed in the matter.

RELATIONS WITH OTHER GOVERNMENT BUREAUS.

At the request of the Bureau of the Census, four agents of the Bureau of Fisheries were detailed to assist in the taking of a fishery census for the calendar year 1908, and in continuation of the understanding between the two Bureaus no general statistical work was done by this Bureau during the year.

The food and drug board of the Department of Agriculture has submitted to the Bureau from time to time samples of fishery products for identification and for expert opinion as to their proper labeling under the food and drug law. Members of the Bureau's staff have attended hearings before the board and given testimony in fishery cases.

The Bureau of Chemistry of the Department of Agriculture has courteously made analyses of samples of water from the various hatcheries. The object of these analyses is to show the special qualities as to gaseous and mineral content of the fish-cultural waters, and the correlation of the chemical properties with the growth and health of the fish.

The question of stocking with food and game fishes the reservoirs and lakes formed in connection with government irrigation and reclamation projects has been brought up at various times. A conspicuous case is that of the Roosevelt Dam in Salt River, Arizona, which will develop an artificial lake from 10 to 25 miles long and 70 to 220 feet deep. The lake will be near the center of the territory and a long distance from any supply of fish. The Department of the Interior has expressed a desire to have the Bureau stock this lake with fish for the benefit of the people, and the Bureau has agreed to undertake this work. The Government is the owner in fee of all lands covered by the lake, and the lands immediately surrounding have been set apart as a government bird preserve. These conditions should result in federal surveillance and control.

The Bureau will undertake to stock all such reservoirs with suitable fish and to maintain the supply of fish therein, but it is thought that a definite policy should be determined on for the exercise of proper control over the fishing in such waters. Reasonable restrictions on the times and methods of fishing should be prescribed after investigation, but the Bureau is without any authority or machinery to enforce regulations; and it is apparent that there should be some arrangement for cooperation between the Reclamation Service, which controls the reservoirs, and this Bureau, which will keep them supplied with fish.

Closely connected with this matter is the necessity for protecting the fish life in the irrigation canals and ditches in the West. The absence of guards or screens at the heads of ditches permits the fish to run in from the canals and become stranded. Furthermore, the annual draining of the canals and ditches leaves fish without water. In this way tremendous destruction of fish is now going on, and much larger loss will ensue later. It is therefore very important that general regulations be framed for the preservation of fish in such waters by requiring the use of effective screens or wheels.

INTERNATIONAL FISHERY MATTERS.

The treaty between the United States and Great Britain signed April 11, 1908, provides for joint governmental control and administration of the fisheries of the contiguous waters of the United States and Canada. To carry out the terms of the treaty two international fisheries commissioners have been appointed—Dr. David S. Jordan on behalf of the United States and Hon. S. T. Bastedo on behalf of Canada. The commissioners are charged with the preparation of uniform and common international regulations for the protection and preservation of the food fishes of the boundary waters. The field investigations preliminary to the formulation of the necessary regulations were conducted by the commissioners in the summer of 1908, and at the request of the Department of State the three chiefs of division of the Bureau were detailed to assist in these inquiries, which covered all the international waters from Passamaquoddy Bay to Puget Sound. The report of the commissioners has been placed in the hands of the President of the United States and the Governor-General of Canada for promulgation.

At the request of the Department of State the Bureau, as in the three previous years, detailed a representative to proceed to Newfoundland and report on the operations of American fishing vessels on the coast of that colony under the modus vivendi, pending the settlement of the dispute as to the rights of our fishermen under the treaty of 1818. This detail extended from September, 1908, to January, 1909, during a part of which period the revenue cutter *Gresham* was assigned to this work and served as the headquarters of the Bureau's representative. American vessels that now resort to the "treaty shore" of Newfoundland are engaged only in the herring fishery. In 1908–9 these vessels numbered 42, whose catch consisted of 32,741 barrels of salted herring, valued at $132,695, and 18,157 barrels of frozen herring, valued at $105,095. Two other vessels were lost while in this fishery. Canadian vessels, several of which were chartered by American firms, secured 2,737 barrels of salted herring, worth $11,773, and 6,505 barrels of frozen herring, worth $29,273. The season passed without any disturbance.

INTERNATIONAL FISHERY CONGRESS.

The Fourth International Fishery Congress convened in the city of Washington in September, 1908, in response to an invitation extended in 1905 by the Department of Commerce and Labor and the American Fisheries Society. The foreign delegates gathered at the Department of State on the morning of September 22 and were greeted by the Acting Secretary, Hon. A. A. Adee. The opening meeting was held at the hall of the National Geographic Society, the United States Commissioner of Fisheries presiding. Addresses of welcome were made by Hon. Oscar S. Straus, Secretary of Commerce and Labor, on behalf of the United States; by Hon. Henry L. West, Commissioner of the District of Columbia, on behalf of the city of Washington; and by Dr. Hugh M. Smith, president of the American Fisheries Society, on behalf of the society. A response in the name of the foreign delegates was made by Dr. P. P. C. Hoek, scientific fishery adviser of the Dutch Government. The nominations of Prof. Hermon C. Bumpus, director of the American Museum of Natural History, as president of the congress, and of Dr. Hugh M. Smith, Deputy Commissioner of Fisheries, as secretary-general, were ratified, and fifteen vice-presidents from different countries represented were elected. Thereafter two sessions were held daily, the final meeting being on the afternoon of the 25th.

The membership of the congress numbered more than 400. Fifteen countries were represented by official delegates, and 11 other countries by delegates of societies and by private individuals. In addition to a number of delegates at large on behalf of the United States Government, four executive departments, the United States National Museum, and the Smithsonian Institution were officially represented. There were also duly appointed delegates from 43 American States and Territories and 20 American societies, clubs, and institutions. There were in attendance many of the leading fishery workers of the world, and as a whole the gathering was the most noteworthy and important of the kind ever held in the Western Hemisphere.

There were presented a large number of papers of exceptional merit, which, with the discussion elicited, covered nearly every phase of fishing, fishery legislation, aquiculture, acclimatization, and scientific investigation of aquatic problems. Many of the papers were submitted in competition for the 18 cash prizes aggregating $2,200 offered by various institutions and individuals. By direction of the Secretary, the publication of the papers and proceedings of the congress will be undertaken by the Bureau, which has reserved for this purpose the Bulletin for 1908.

Among the resolutions and views adopted by the congress were the following: (1) Expressing pleasure that the long-standing fishery dispute between the United States and Great Britain affecting waters on the northeast coast of North America is to be submitted to settlement by arbitration; (2) commending the President of the United States for his stand in behalf of the conservation of natural resources; (3) advocating the establishment, in all countries having important fisheries, of national schools of fisheries and fish culture under government auspices; (4) urging the necessity of simplifying fishery laws by the elimination of qualifying clauses which often provide loopholes through which offenders may escape penalties and waters remain unprotected; (5) favoring the formation of the Appalachian Forest Reserve and other similar reserves which embrace the headwaters of important fishing streams; (6) advocating uniform measures on the part of the United States and Canada for the extermination or utilization of the dogfishes, in view of the great injury done thereby to the fishing industry; (7) reaffirming the action of former international fishery congresses in recommending an international oceanographic exploration of the Mediterranean in the interests of the fisheries.

This series of congresses was organized and inaugurated at Paris in 1900, the intervening meetings having been held at St. Petersburg in 1902 and Vienna in 1905. The next congress will convene at Rome in 1911.

EXPOSITIONS.

The Bureau took part in two expositions during the year, one at Seattle, Wash., and the other at Quito, Ecuador.

In an act of Congress approved May 27, 1908, special provision was made for the Bureau's participation in the Alaska-Yukon-Pacific Exposition, which opened at Seattle June 1, 1909, for a period of five and a half months. Preparations were begun in September, 1908, and by the opening day the installation had been completed and the exhibit was ready. The exhibit was designed primarily to illustrate the operations of the Bureau in the study of the commercial fisheries, the propagation of fish, and the investigation of scientific matters pertaining to fishing and fish culture. The amount of money available did not permit a comprehensive display, but the functions, purposes, and work of the Bureau were shown in outline by an aquarium and a carefully selected series of apparatus, specimens, charts, and models. The exhibit occupied a separate building in the rear of and connected with the main government building. The fisheries annex was particularly convenient, well adapted for its purposes, and of ample dimensions to accommodate all the available material. The building contained 9,250 square feet of floor space, of which 5,500 square feet was devoted to the aquarium. The latter was a special feature, and contained fishes and other aquatic creatures of both fresh and salt water. It comprised 30 tanks of several sizes and a central pool for large specimens. Local waters were drawn on largely for stocking the aquarium, but interesting collections were sent from the East and from the coast of California. An assortment of fishes of the Hawaiian Islands, provided by those in charge of the Hawaiian exhibit, proved very attractive.

Under an act of Congress providing for the participation by the United States in an exposition to be held at Quito in commemoration of Ecuador's one hundredth anniversary of independence, this Bureau was called on for such material as would represent its functions for installation in the United States building. The exposition continued for a period of three months, beginning August 9, 1909. Owing to the very small amount of money available, the exhibit was necessarily confined to pictures, publications, maps, and a descriptive pamphlet printed in Spanish. The Bureau was awarded a grand premium for its exhibit.

PUBLICATIONS AND LIBRARY.

There were received from the Government Printing Office during the year the bound edition of the Annual Report and Bulletin for 1907 and 13 documents issued in pamphlet form. Reprints of 6 documents, mostly relating to fish-cultural subjects, were required to meet current requests for such information.

There is an active and widespread demand for the publications of the Bureau, many of which contain practical instructions for persons engaging in fish culture, in commercial fishing, in the preservation of fishery products, and in other branches of the industry. During the year 23,000 documents have been forwarded in response to specific requests and 7,500 additional have been sent to libraries, societies, educational institutions, and specialists at home and abroad whose names are on the permanent mailing list.

The library of the Bureau is strictly technical, and is maintained for the use of the office staff, the laboratories and stations, and outside collaborators. The accessions in 1909 numbered about 450. By exchange, the library receives all the fishery publications of foreign governments and societies, as well as those of the States and local organizations.

APPROPRIATIONS.

The resources of the Bureau for the fiscal year 1909 were $840,100, including a number of special appropriations; of this amount there was turned back into the Treasury from the annual appropriations an unexpended balance of $23,302.35. In accordance with law, the detailed expenditures under the different items will be reported to Congress. The appropriations were as follows:

Salaries:	
General	$305,820.00
Agents at Alaska salmon fisheries	4,500.00
Agents at seal fisheries	11,430.00
Miscellaneous expenses:	
Administration	8,000.00
Propagation of food fishes	275,000.00
Inquiry respecting food fishes	30,000.00
Statistical inquiry	7,500.00
Maintenance of vessels	70,000.00
Supplies for native inhabitants of Alaska on the seal islands	19,500.00
Specials:	
Repairs for steamer *Albatross*	18,000.00
Purchase of steam vessel for Alaska salmon inspection service	20,000.00
Establishment of a biological station in the Mississippi Valley	25,000.00
Construction and repair of buildings and other improvements for stations at—	
Baird, Cal	850.00
Duluth, Minn	9,000.00
Leadville, Colo	7,500.00
Construction and repair of buildings and other improvements, and purchase of land for stations at—	
Mammoth Spring, Ark	12,000.00
Erwin, Tenn	9,000.00
Cape Vincent, N. Y	7,000.00

RECOMMENDATIONS.

SALARIES.

In the estimate for appropriations required for the conduct of the work of the Bureau for the fiscal year beginning July 1, 1910, provision is made for the elimination of 5 low-grade clerkships and the substitution therefor of one senior clerk at $2,100 per annum, one at $1,980 per annum, and one at $1,800, thus leaving $900 per annum as the minimum clerical pay. This will afford an opportunity to advance competent and deserving employees to grades in which they will receive salaries commensurate with the duties required and performed. It is further provided that the salaries of assistants in charge of divisions, chief clerk, superintendent of car and messenger service, two scientific assistants, and firemen and messengers be raised. These increases are in line with those proposed in the report of the Committee on Grades and Salaries transmitted to Congress by the President on February 11, 1908, and aggregate

$9,820; and it is earnestly hoped that they will be granted, as thereby the efficiency of the service will be greatly enhanced. It is recommended also that the salaries of all seamen be advanced from $540 to $600 per annum; the pay of these employees is regarded as most inadequate, particularly as they are obliged to meet mess bills out of their salaries, thus leaving such a small balance that good, reliable men are not attracted to the service. The foregoing increases are more than offset by reductions in the estimates for construction work and miscellaneous expenses, so that the aggregate appropriations asked for 1911 are $32,640 less than were received for 1910.

In connection with this request for increases in salaries, the Commissioner desires to express his appreciation of the efficient and faithful service performed by officials and employees. The progress that has been made and the high standard that has been maintained in all branches of the work are directly due to the intelligent and zealous efforts of the Bureau's staff at headquarters and in the field.

EXTENSION OF FISH-CULTURAL WORK.

Notwithstanding the present magnitude of the fish-cultural operations of the Bureau, there is necessity for a substantial increase, in order that certain important sections may participate more thoroughly in the beneficial work of the federal fishery service and in order that the yearly augmented demands for food and game fishes may be met. The recommendations under this head in the last report are therefore renewed. There should be provided additional hatcheries in the Mississippi Valley and there should be a marked extension of the work of saving fishes from the overflowed lands in the same region. Recent experience has shown that in the southeastern part of Missouri the conditions are favorable for the establishment of a combination station for cultivation of pond fishes and for the rescue of fishes from the bayous and ponds that become dry each year. The previous recommendation for a fish-cultural experiment station is likewise resubmitted.

NEW OFFICE BUILDING.

The recommendation for a new building for the accommodation of the Bureau's offices in Washington is urgently renewed and emphasized. The present obsolete, unsuitable, cramped, unsafe, and unsightly quarters interfere with efficient administration and retard progress along important lines. Besides office quarters, there are required laboratory facilities, proper storage for collections, and a modern public aquarium which, while serving a most useful purpose in connection with the experimental work of the Bureau, would be one of the chief educational attractions of Washington.

Respectfully,

Geo. M. Bowers,
Commissioner.

To Hon. Charles Nagel,
Secretary of Commerce and Labor.

REPORT

OF THE

SUPERINTENDENT, COAST AND GEODETIC SURVEY

REPORT

OF THE

SUPERINTENDENT, COAST AND GEODETIC SURVEY.

DEPARTMENT OF COMMERCE AND LABOR,
COAST AND GEODETIC SURVEY,
Washington, September 13, 1909.

SIR: I have the honor to submit the following statement covering the operations of the Coast and Geodetic Survey for the fiscal year ended June 30, 1909:

FIELD WORK.

The usual progress has been made in the collection and preparation for publication in the form of Charts, Coast Pilots, Tide Tables, and Notices to Mariners of all obtainable information useful to navigators and relating to the coasts of the United States and to the coasts under the jurisdiction of the United States.

In cooperation with the insular government good progress has been made in charting the unsurveyed coasts of the Philippine Islands and about 10 per cent of the estimated extent of the coasts was covered during the year, which brings the total extent of the coasts surveyed by this Bureau to 38 per cent of the whole. Surveys of the remainder, although of less importance to commerce, are being carried forward with all possible dispatch.

All of the vessels and men available for work in Alaska have been engaged in charting unsurveyed coasts where charts are urgently needed to meet the constantly increasing demands of commerce. Unfavorable climatic conditions usually prevail during the short season each year when it is practicable to work in this region, and even with the untiring energy displayed by those engaged it is scarcely possible to keep pace with the needs of this rapidly developing section. Surveys are made of uncharted waters, in the order of their importance, as rapidly as the means granted the Bureau by Congress permit.

The first survey of Porto Rican waters has been completed except for a small amount of offshore sounding.

The long wire drag now in use by the Survey has been considerably modified and improved during the year. The use of this or some similar apparatus is believed to be the only way of definitely determining whether many important bodies of water are free from dangers to navigation.

The old monuments recovered and the new ones established on the United States and Canada boundary between Lake Osoyoos and

Point Roberts were inspected and numbered. The recovery and remarking of the line between Point Roberts, Wash., and the summit of the Rocky Mountains is now completed. A vista has been opened along the line through the wooded sections, and the 409 miles of boundary is marked by 272 monuments, many of which are the original monuments recovered and restored. Progress was made by United States parties in surveying and marking the boundary east of the Rocky Mountains in the following localities: On the eastern slope of the mountains, along the Pigeon (at the west end of Lake Superior), along the eastern boundary of Maine, and along the St. Croix River. In the demarcation of the Alaska boundary the line in southeast Alaska was marked at the crossing of the Alsek River and preliminary work was done at the crossing of the Unuk and Leduc rivers.

On the one hundred and forty-first meridian the line was located to a point 195 miles south of the Yukon River and surveyed to a point 145 miles south. The location of the line north of the river is progressing satisfactorily. In this connection attention is again called to the importance of having a triangulation extended from the initial point of the boundary on the Yukon River down the great valley to its mouth to furnish a connected line of geographic positions along the Yukon to correlate detached portions of work already in progress or authorized for the economic development of the country and to form a basis for all future surveys in the valley of one of the great rivers of the world.

Work at the latitude observatories at Gaithersburg, Md., and at Ukiah, Cal., maintained by the International Geodetic Association under my direction, was continued during the year.

An officer continued on duty as a member of the Mississippi River Commission and another was continuously employed in cooperating with the Maryland State Board of Shell Fish Commissioners, as authorized by law.

The triangulation of the city of New York by the corporation under the direction of an officer of the Bureau was completed, and the results have been published. As a result of this cooperation a valuable coordination of certain portions of the coast triangulation has been secured at a nominal cost to the United States and to the expressed satisfaction of the city authorities.

In response to a request from the governors of the States of Louisiana and Mississippi and under the authority of the Secretary of Commerce and Labor an officer located and marked the water boundary between these States as established in a decree of the United States Supreme Court.

Astronomic observations to determine latitude, longitude, or azimuth were made in 13 States and Territories and in British Columbia.

Observations to determine the relative force of gravity were made in 6 States and in the District of Columbia.

The standard levels were extended in 7 States and Territories and topographic surveys were made in 8 States.

Triangulation was done in 12 States and supplementary triangulation, including the determination of the geographic positions of aids to navigation, was continued along the coasts of Massachusetts, Connecticut, Maryland, North Carolina, and the west coast of Florida.

This work was completed along the east coast of Florida and the Florida keys to Key West.

The investigation of the navigable waters on the coast of Maine and in the vicinity of Key West, Fla., with the long wire drag was continued, and other hydrographic work was done in the waters of 7 States.

The collection of information for revised editions of the two volumes of the Coast Pilot covering the coast from Point Judith, Rhode Island, to Chesapeake Bay Entrance was completed in the field, and a new edition of one volume was prepared and published. A revised edition of the Coast Pilot volume covering the coasts of California, Oregon, and Washington was prepared and published.

The magnetic survey of the country was continued by making observations at 265 stations distributed over 36 States and Territories, and numerous observations were made at sea on board the surveying vessels on their cruises to and from their fields of work in various portions of the country.

A continuous record was also obtained of the variations in the force of terrestrial magnetism at 5 observatories equipped with self-registering instruments. Continuous tide observations were obtained at 6 stations on the Atlantic and Gulf coasts and at 3 stations on the Pacific coast.

In Alaska surveys were made in Dixon Entrance, Controller Bay, Prince William Sound, Cook Inlet, Shelikof Strait, and along the shores of Kodiak Island. A revised edition of the Coast Pilot volume covering the coast from Dixon Entrance to Yakutat Bay, and sailing directions from Yakutat Bay to Cook Inlet, were prepared and published.

In the Philippine Islands 1 Coast and Geodetic Survey steamer and 4 steamers loaned to the Bureau by the insular government were engaged in charting unsurveyed portions of the coasts, and other surveying parties were stationed on land and used chartered launches. Surveys were made along 10 per cent of the total estimated extent of the coasts. The organization of the work in the Philippine Islands remains unchanged. The usual computations of field observations, including the establishment of tidal planes, reduction of soundings, and preparation of magnetic data for compasses, etc., were made at the suboffice in Manila, and drawings for new charts and new editions of charts were prepared and sent to Washington for completion and publication. New editions of the sailing directions for the islands are prepared and published as often as necessary, and a monthly Notice to Mariners is published.

OFFICE WORK.

Good progress was made in the various branches of the office work, including computation, plotting, and discussion of the results of the work in the field, and the preparation of data for publication by chart or otherwise. The ever increasing number of requests for information have been promptly met and are a gratifying evidence of the wide appreciation of the value of the archives of the Bureau.

A new adjustment of the results of precise leveling in the United States, including much additional recent work, was made and the results were published.

A discussion of the "Figure of the Earth and Isostasy from Measurements in the United States" was made and a volume containing the results was prepared and sent to the printer. Several volumes containing the results of observations at the 5 magnetic observatories in past years were prepared and published.

Tables of predicted tides for numerous ports on the coasts of the United States and in foreign countries were prepared and published. These tables are published annually in advance, and those for 1910 were ready for issue on May 28.

The Annual Report of the Survey for 1908 was prepared for transmission to Congress.

The demand for charts was greater than ever before and the issue was larger than during any previous year.

The amount appropriated for the Coast and Geodetic Survey for the fiscal year ended June 30, 1909, and accounted for by the bureau disbursing agent was $996,290 (exclusive of the appropriation for printing), of which $245,000 was for manning and equipping the vessels of the Survey, $40,000 for repairs and maintenance of vessels, and $50,000 for office expenses. The remainder of the appropriation was divided between the expenses of parties in the field ($325,400) and salaries of field and office forces ($335,890). In addition to the above sums, the appropriations to the State Department for marking the United States and Canada boundary (except a portion of the water boundary) and for locating and marking the Alaska boundary are disbursed under my direction as Commissioner through the bureau disbursing agent as special disbursing agent of the Department of State.

A detailed description of the work of the year with maps illustrating its progress can be found in my Annual Report, which is required by law to be submitted to Congress in December of each year.

Yours, respectfully,

O. H. TITTMANN,
Superintendent.

To Hon. CHARLES NAGEL,
Secretary of Commerce and Labor.

REPORT

OF THE

DIRECTOR OF THE BUREAU OF STANDARDS

REPORT

OF THE

DIRECTOR OF THE BUREAU OF STANDARDS.

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF STANDARDS,
Washington, July 1, 1909.

SIR: I have the honor to submit the following report of the work of the Bureau of Standards for the fiscal year ended June 30, 1909:

DIVISION I.—ELECTRICITY.

Electrical measuring instruments, of which a great variety of types and sizes are employed in the measurement of electrical current, voltage, and power, are tested by comparing them with certain standard instruments which have been carefully investigated and which are referred back from time to time to the fundamental electrical standards which it is one of the functions of the Bureau to establish and maintain. These fundamental electrical standards represent the unit of resistance and the unit of electromotive force or voltage, the values of which, and their method of preparation, are fixed by law. They are not, however, chosen arbitrarily, but are so specified as to be simply related to the absolute units of resistance and voltage, which latter are logically derived from the fundamental units of length, mass, and time—that is, the centimeter, the gram, and the second.

The experimental realization of suitable concrete electrical standards involves two distinctly different steps or stages—first, the determination of their values by means of what are called "absolute electrical measurements," in which is demanded the complete theory of the methods and instruments employed, the most perfect instrumental equipment, and experimental skill of a high order; second, the development of concrete material standards by means of which the values found in these elaborate absolute measurements may be permanently preserved.

This work was first done (chiefly by European investigators) a generation ago, and our present legal values were fixed on the recommendation of the International Electrical Congress of 1893. But subsequent work has shown that the values then adopted were not as accurate as they were supposed to be, and whereas England, France, America, and some other countries have continued to employ the values then chosen, Germany, Austria, and other countries have used slightly different units for the measurement of current and voltage.

The International Electrical Conference which met in London in October, 1908, adopted a new value for the unit of electromotive force, but left to a newly constituted international committee the completion of the specifications of the concrete standards, inasmuch as agreement could not be reached at the conference. This committee of twenty members represents eleven different countries, three of the four American members, including the secretary and treasurer of the committee, being from the Bureau of Standards.

In order to settle some of the disputed questions involved, and to clear up some of the obscure points at issue, the international committee has arranged to have an international cooperative investigation undertaken by representatives of some of the largest national standardizing institutions, including this Bureau; and at our invitation the work is to be carried out during the coming fiscal year at the Bureau of Standards. This work is of prime interest and importance, and will probably go far toward securing not only greater precision, but, what is even more important, international uniformity among the civilized nations of the world in electrical units and standards.

In view of the international conference of last October and the approaching international cooperative investigation, considerable work has been done during the year on the subject of electrical standards and absolute electrical measurements.

RESISTANCE AND ELECTROMOTIVE FORCE.

Although the London International Electrical Congress selected the ohm and the ampere as the fundamental electrical units in terms of which all electrical measurements are to be expressed, the Bureau has found it impracticable to adopt the recommendations, owing to variations still found in coulometer measurements, which are at present under investigation. The results of electrical measurements will therefore be referred to the basis of reference heretofore employed, namely, the ohm and the Weston standard cell.

During the past year considerable progress has been made in the construction of primary mercurial resistance standards. The calibration of a number of carefully selected capillary tubes has been completed, and considerable preliminary work has been done in other directions.

Further work has been done in cooperation with the Chemical Division in the investigation of equilibrium conditions in the Weston normal cell, which have been called into question, and some promising results have already been obtained. The comparison of standard cells, set up during the past year, at the English National Physical Laboratory and by other investigators has verified the accuracy of reproduction claimed in former reports—several parts in 100,000.

An investigation of the conductivity and temperature coefficient of copper and aluminum had been undertaken at the request of the committee on standards of the American Institution of Electrical Engineers and of a number of copper refiners and wire manufacturers who have generously offered to cooperate with the Bureau in furnishing and drawing samples. This work will include an investigation of commercial and specially prepared materials, the influence of traces of added impurities which so largely affect the conductivity, and the influence of drawing and annealing.

An experimental and theoretical study has also been made of the vibration galvanometer used in precision measurements with alternating currents and has resulted in improvements which further increase its already high sensibility.

The above investigations will be continued as far as permitted by the routine testing of apparatus submitted for certification, the volume of which has shown a steady increase since the organization of the Bureau.

INDUCTANCE AND CAPACITY AND ABSOLUTE MEASUREMENTS.

The work on the absolute measurement of electric current has been continued during the year and a new value obtained for the electromotive force of the Weston normal cell. An investigation of the silver coulometer is being carried out, which promises to yield results of much scientific value. A new method for the absolute measurement of resistance has been devised, and the necessary apparatus constructed; work of carrying out the measurements will be done during the next fiscal year. Investigations of inductances and condensers have been continued. Tests have also been made of standards of inductance and capacity and of electrical instruments. The work in this section touches the practical application of electricity less directly than in other sections of the Electrical Division, being largely concerned with the fundamental measurements which underlie practical applications.

MAGNETIC MEASUREMENTS.

The principal demands for magnetic testing comprise tests to determine the magnetic permeability of specimens and to determine the energy losses occurring in the magnetic material used in the construction of electrical apparatus, such as dynamos, motors, and transformers. Improved methods for conducting both of these tests have been in the course of development for some time, and have now reached a satisfactory stage. Circular No. 17 has been issued, announcing the readiness of the Bureau to conduct magnetic tests for the public and prescribing the conditions under which tests are made.

The Bureau has prepared a number of bars of different grades of steel, and different sizes, whose magnetic properties have been carefully determined. These are supplied to the public, when desired, for the purpose of checking magnetic measurements made with commercial or other apparatus.

Preparations have been made for testing the spirals of bismuth wire which are used for the measurements of intense magnetic fields, and several of these spirals have been tested. Special investigations were completed during the year to determine the effects of high temperatures and of low temperatures upon the magnetic properties of manganese-steel, the alloy used being one which is very nearly nonmagnetic; to determine the errors incident to testing material in the form of rings; to discover whether the energy losses due to alternating magnetization are dependent upon the wave form of the electrical current used for magnetizing, and to determine the relative merits of silicon-steel and ordinary steel for use in electrical transformers.

ELECTRICAL MEASURING INSTRUMENTS.

The demands made by the public upon the Bureau for the testing of this class of apparatus have increased considerably during the past year. In addition to standard instruments regularly tested in the past, the work of testing current and potential transformers has been considerably extended; precision methods of determining the constants of these transformers have been developed, and more of these transformers have been tested during the past year than in all the preceding years of the work of the Bureau. With the increasing development of high voltage power plants, especially in the West, these transformers have come into a place of great importance, as large amounts of power bought and sold are measured by their aid.

In addition to the usual work for other government departments, special work includes tests made for the National Museum, the Isthmian Canal Commission, the Commissioners of the District, and the general supply committee. Assistance has been rendered to the latter committee in the work of testing and inspecting manufacturers' samples of electrical goods and supplies.

Progress has been made on the design of labor-saving electrical testing instruments, which are soon to be built for the use of the Bureau.

PHOTOMETRY.

Reference was made a year ago to the effort which the Bureau was making to secure uniformity in the value of the standard candle in England, France, and America, and to secure the general adoption of this international candle by the gas and electrical industries in this country. The proposal made by this Bureau was accepted by the national laboratories of England and France, and accordingly, on July 1, our unit of light was decreased by 1.6 per cent. This new value of the standard candle will hereafter be the standard for all photometric measurements in this country, both for gas and electric practice. It has been indorsed by engineering societies, and will gradually be recognized by the laws of the several States. Heretofore the "candle" has been spoken of in state laws and regulations as the standard of light, but different sperm candles differ so much that the unit so determined has been quite variable. Hereafter the "candle" as a unit should be understood to mean not the light of a sperm candle, but the value of the unit of light maintained by this Bureau.

A special investigation will be made during the next fiscal year of flame standards employed in photometry, for the purpose of determining their degree of reliability and, if possible, to improve one or more of them for the practical uses of gas photometry.

The Bureau has inspected and tested samples of electric incandescent lamps purchased by several of the government departments, amounting altogether during the past year to about 500,000 lamps. These tests are important, as they insure the delivery of good lamps. Without tests inferior lamps would certainly be furnished in many cases.

The standard specifications for carbon-filament incandescent lamps issued by the Bureau two years ago were revised during the year, and new specifications added for the new metal-filament lamps.

These specifications have been prepared in conjunction with engineers representing the manufacturers and some of the government departments, and have been adopted as standard by the manufacturers and by the Government, and are used by many purchasers of lamps.

A considerable amount of work has been done during the year on color photometry, including the determination of the color values of various artificial illuminants in terms of average daylight, and the method of combining artificial illuminants to produce a color equivalent to that of daylight illumination.

Tests of gas and electric lamps to be used as standards by the gas and electric companies and by manufacturers have been made during the year in considerable numbers. No provision has yet been made for arc-lamp testing, owing to lack of space and insufficient personnel.

DIVISION II.—WEIGHTS AND MEASURES.

The routine testing in the Division of Weights and Measures increased nearly 200 per cent over the previous year and the force, equipment, and space at its disposal were taxed to the utmost to meet the demands made upon the division.

LENGTH MEASUREMENTS.

About twice the number of length measures were tested (approximately 570), including steel tapes, level rods, gages, and standard bars, over 80 per cent being either for the federal or for the state governments. The increase was due to the extraordinary demand of the Philippine government, which inaugurated a new weights and measures law on January 1, 1907. Other increases were due to the replacement of apparatus destroyed by fire in the building occupied by the Geological Survey, and to the further fact that practically all purchases now made by the Government are on specifications or according to samples submitted to the general supply committee.

Urgent requests have been made for the determination of the expansion of various alloys and materials, and to determine the dimensions of gages with a degree of accuracy recently made possible by the extraordinarily accurate gages now being manufactured by a Swedish firm. This work was necessarily deferred, but the development of apparatus for the testing of screw threads and the determination of expansions will be taken up energetically next year when new assistants are available.

The construction of the new meter comparator for length standards has reached a point where comparisons of standards in the old troughs or boxes is possible. The new iron carriage, the invar beam, and the microscope have been placed in position, and comparisons already made indicate a marked improvement in the results over those obtained with the old comparator. The box for comparing bars in ice and the arrangement for temperature control, including heating coils and water circulation of the double box, are not completed, but it is expected that they will be finished in the coming year.

During the year the Bureau received the platinum-iridium meter bar purchased from the French Government and graduated by the Société Genevoise. This bar was one of those made of the alloy of 1874, prepared by the French section of the international committee, because it contained a slightly larger percentage of certain metals than had been specified. It is of the same cross section as the prototype meters, and, with the graduation by the Société Genevoise and the comparison with the standards at the International Bureau, is in every other respect as satisfactory a standard as the prototype meters. After being graduated it was compared and calibrated at the International Bureau of Weights and Measures, in Paris, and its coefficient of expansion determined.

Arrangements were completed during the year for comparing metal tapes with the bench standard, the tapes being supported at any desired points, and notice of this fact was given in a new edition of Bureau Circular No. 2.

Urgent demands were also made upon the Bureau for the standardization of master screws and preliminary designs of apparatus for such work were begun. The extreme difficulty of measuring the various dimensions of any screw with sufficient accuracy to state in advance that it will fit a certain nut is evident to anyone who has had experience in such work, and up to the present time no apparatus which more than approximately fulfills the desired conditions has been constructed. Nevertheless, the Bureau should be prepared to settle any dispute that may arise between manufacturers of screws and pipe threads as to compliance with the standard specifications for such threads, and every effort will be made to develop apparatus to satisfy the exacting needs of such work.

MEASUREMENTS OF MASS.

As in other sections of the division, the routine testing of standards of mass showed a substantial increase of something over 50 per cent. This work, with the necessary cross-checking and intercomparison required to maintain satisfactory values for the secondary standards, left little or no time for the investigations which had been planned by this section. A large part of the routine work, as heretofore, was for the weights and measures inspection service of the several States.

It is gratifying to note a great improvement in the character of the weights now submitted for test over those submitted a few years ago. Solid one-piece weights protected by a coating of gold plating and made in accordance with the specifications of the Bureau may now be obtained from several manufacturers.

In response to the demand of manufacturers and state and local sealers tolerances for commercial weights, based upon those in use abroad, have been prepared, and will be announced in a circular some time during the next year.

The alterations, now practically completed, in the 25-kilogram precision balance will greatly add to the facility with which it can be used. What is most urgently needed in the form of equipment at the present time is a precision balance for loads of 200 grams and a quick-acting balance for loads of 30 grams. The maker of the small assay balance which has proved so satisfactory has been induced to design and construct a special balance of the desired capacity which it is hoped will be completed during the coming year.

A duplicate of a large part of the present equipment, as well as additional working space and assistance, must soon be had unless the division can be relieved of some of the demands upon it.

VOLUMETRIC MEASUREMENTS.

During the year approximately 9,500 pieces of glass volumetric apparatus were tested, as compared with about 3,000 in the previous year. About 6,000 pieces additional were examined and rejected without actual test on account of defects of construction, design, etc. This apparatus consisted of flasks, transfer pipettes, measuring pipettes, burettes, and graduates, the larger portion being for government laboratories, and are of great importance, as in this way precision is provided for the general scientific and technical work of the Government.

In addition to the glass volumetric apparatus, 162 metal and paper capacity measures were tested. These included standards for several States and municipalities.

HYDROMETRY.

Satisfactory progress was made during the year in placing the hydrometer work of the Bureau on an excellent basis.

Specifications for the construction and manipulation of hydrometers, as well as density tables for use in hydrometry, were prepared during the year and published in the form of circulars (Nos. 16 and 19). The primary standards of the Bureau were carefully calibrated and methods of testing developed. Over 1,000 hydrometers, including manufacturers' standards, alcoholometers used by the United States Internal-Revenue Service in the collection of duty on spirits, and hydrometers for various industrial uses, were tested.

TIME MEASUREMENTS.

As a preliminary to the testing of watches for the public several sets of watches loaned by different manufacturers were tested as to their rates under varying conditions, in order to determine the tolerance to be allowed by the Bureau in issuing certificates. The test of the first lot was completed in July, 1908. A second lot of 50 watches, loaned directly by the manufacturers from stock, were next tested. This test was begun in November, 1908, and finished in April, 1909. A test of a third lot of 54, also loaned by the manufacturers but supposed to represent the better regulated watches of the regular product of high-grade watches, was begun in April, 1909, and is still in progress.

All of the above watches were tested for variations of rate with the five changes of position for which high-grade watches are usually adjusted, viz, dial up, dial down, pendant up, pendant right, and pendant left. The effects of changes of temperature also were observed between 35° and 100° F. The variation of the rate throughout the day was ascertained by readings taken at different hours.

It is expected that the computations and regulations based upon them and to be followed in the testing of watches will be completed within the ensuing year. Before beginning the regular testing of watches, however, it will be necessary to construct a hot-and-cold room for temperature tests and to modify and extend the equipment.

The time on which the watch readings are based was obtained from a Riefler clock mounted in a constant temperature room in the basement of the physical laboratory. For one period of a month the correction of the clock gradually changed through less than 0.4 of a second without adjustment of the regulation being made during that period. The correction of the clock is obtained by comparison with the noon signal of the Naval Observatory received at the Bureau by wireless telegraph from the Washington Navy-Yard station. This service has been interrupted frequently for considerable periods during the year, due to changes being made in the sending station at the navy-yard, at which times it was necessary to obtain the signal by telephone.

INSPECTION OF TRADE WEIGHTS AND MEASURES.

The fourth conference on weights and measures was held on December 17 and 18, 1908, and was well attended by delegates from different parts of the country. The reports of the delegates indicated that satisfactory progress is being made to improve the methods of inspection in New York, Massachusetts, Ohio, and Kansas, new and better laws having been enacted, while in Pennsylvania, Colorado, and New Jersey, bills were considered by the legislatures. A recommendation was adopted urging an amendment to the pure-food law to require the weight, value, or number of the contents to be plainly marked on all commodities put up in sealed packages. This is of importance to the consumer in order that he may know exactly what he is purchasing. At present where sizes are not fixed by law there is nothing to prevent anyone from decreasing the size of the package put up without the purchaser being aware of the change. Evidence on all sides shows a widespread interest in the subject by individuals and various national organizations.

The appropriation of $10,000 made by Congress for an official investigation as to the extent that fraudulent weights and measures are used in different parts of the country is now available, and plans are completed for securing two experienced inspectors by civil-service examination to make a personal inspection in a number of cities and towns in various States. They will, however, practically cooperate with the local official, if there be any, and endeavor to get information that will be first hand and reliable.

The general demand for better inspection of trade weights and measures, as well as the unification of the state laws on the subject, has caused a number of the States to call on the Bureau for the verification of both old and new standards. New Mexico, Kansas, and New York have purchased new equipment for their state sealers, while Massachusetts submitted for verification the standards furnished many years ago by the Federal Government.

DIVISION III.—THERMOMETRY, PYROMETRY, AND HEAT MEASUREMENTS.

The tests completed during the year were as follows: 12,718 thermometers, including 504 high-temperature thermometers, 1,287 laboratory and special thermometers, and 10,927 clinical thermometers; 5 optical pyrometers, 22 thermocouples, 8 pyrometer galvanometers, 5 resistance thermometers, 159 flash-point and viscosity tests of oils, 41 standardized heat samples, and 6 other tests involving heat measurements; in all about 12,964 separate tests, an increase of nearly 40 per cent over the preceding year. The increase in the testing of the higher grades of thermometers was about 125 per cent, necessitating a very considerable increase in the amount of time devoted to this testing and emphasizing anew the need for a better establishment of the scale of temperature up to 500° C.

At the urgent request of chemists, engineers, and manufacturers this division, in cooperation with the Optical Division, is now furnishing standardized heat samples of known heat value for the standardization of combustion calorimeters. The practice of awarding large contracts for fuel on the results of determinations by combustion calorimeters is growing rapidly. The preparation of these heat samples, and the standardization of the finely graduated thermometers used in the tests, have already done much to increase their accuracy and to bring them to a uniform basis. Thus far the work is limited to furnishing analyzed samples of cane sugar of the highest purity. The determination of the heats of combustion of other substances, however, such as benzoic acid, naphthalene, and anthracene, is also under way.

By thus enabling chemists and engineers to test the accuracy of their apparatus and methods the Bureau is relieved of such routine testing as can be done as well in private laboratories, while accomplishing the important end in view, viz, the use of standardized apparatus and methods to enable different observers to obtain strictly comparable results. Accordingly, the determinations of the calorific values of fuels in this division have been limited to cases where the results of other observers disagree or where tests were made for another department of the Government.

In view of the urgent need for data for engineers, corporations, and public-service commissions, work has been done upon new apparatus for determining the heats of combustion of gases and intercomparison of the various types of calorimeters that are beginning to be widely used in the gas industry. This work will be carried forward rapidly during the coming year.

Upon request of the refrigeration industry the experimental work in determining the specific heats of calcium-chloride brines was completed during the year. This work is of importance to more efficient refrigeration engineering. Brines of very different chemical composition were included in this work, and two entirely different methods of calorimetry were used, the results by the two methods showing excellent agreement.

The use of cooling curves in metallurgical research is such that a description of methods used to obtain cooling curves of metals and other materials, with a brief analysis of their characteristics, has been published and will aid the application of such graphic methods to temperature work.

Pyrometers of almost every type used for the measurement of high temperatures are now being submitted for test. This is encouraging evidence of the increased application of scientific methods in those industries whose products depend upon the measurement or control of high temperatures. Until recently the eye of the workman, so subject to variable influences, was the only method in use in this country for estimating high temperatures; to-day pyrometers are found in use in rolling mills, in the ceramic and glass industries, in the manufacture of carbons, etc., and in various chemical operations. As nearly all the leading types of pyrometer are used in the laboratories of the Bureau, this division has been able to furnish information to representatives of many industrial plants about to introduce pyrometric methods in their works. This is an important feature of the work of this division.

An investigation was completed in this division, several years ago, upon the order of accuracy attainable with optical pyrometers in which the temperature of an incandescent body is estimated by the amount of light or heat emitted by it. Instruments of this type could, under proper conditions, be used to measure the highest attainable temperatures, and the several types of pyrometer examined showed excellent agreement even at the extreme temperature of the electric arc. Optical pyrometers were then just being introduced into use. They are now widely used in the industries, largely as a result of the Bureau's work. Since the light and heat radiated varies vastly with different materials, it becomes necessary to investigate the radiation from such substances as iron, copper, carbon, glass, fire clay, etc., to which these pyrometers are being applied in the works. A research upon copper disclosed the fact that the radiation from the colder oxidized solid metal may exceed that from the clean surface of the molten metal, and that in some cases the indications of optical pyrometers may be in error by hundreds of degrees. The results are being published in the Bulletin.

The growing use of methods of temperature measurement based upon the change in electrical resistance of a platinum wire, and the high order of accuracy attainable by this method, led to an extended investigation of platinum resistance thermometry at high temperatures. The aim was to ascertain the advantages and limitations of such thermometers at high temperatures, the order of accuracy attainable, the effect of impurities in the wire, and the changes produced by exposure to high temperatures. These thermometers were also used to determine the melting and freezing points of certain metals, to determine the accuracy with which metals from the leading firms could be used to give "fixed points" for the high-temperature scale and for the calibration of pyrometers. This investigation was completed during the year and the results will soon be published. In order to improve the data needed for expressing temperatures on the absolute thermodynamic scale, the ultimate goal of all temperature measurements, the work of Joule and Thomson on the expansion of gases will be repeated and extended. This work has also a bearing on methods of liquefying gases, and hence on refrigeration, and on processes for the commercial separation of the oxygen and nitrogen of the air.

The theory of the Hampson gas liquefier was studied to obtain more precise insight into the working of this commonly used machine and the best conditions of economic operation. The results are now being published. Improvements in liquefying processes suggested by this investigation will be embodied in the apparatus now being designed.

The greatly increased demands for testing made on this division during the year have retarded some important investigations of fundamental importance to the usefulness of the division, such as the intercomparison of the several datiation laws, as a basis for the high-temperature scale; the establishment of the standard scale of temperature in the interval 100° to 500° C., and the construction and use of a standard gas thermometer for the determination of important fixed points of the temperature scale.

The number of clinical thermometers submitted for test during the year is 30 per cent greater than in the preceding year. The Bureau has continued the practice of loaning standard thermometers to the manufacturers of clinical thermometers, with most satisfactory results, the accuracy of practically all the product of American manufacturers, exceeding some 500,000 thermometers per annum, being thus controlled by standards loaned by this Bureau.

DIVISION IV.—OPTICS.

During the year some important researches have been made in the Optical Division, which includes radiometry, spectrometry, polarimetry, and interferometry. Such researches are valuable in determining physical constants and the properties of materials, supplementing other methods used for this purpose. Besides the researches mentioned, many optical tests have been made for the Government and the general public, such as telescopic and photographic lenses, prisms, samples of glass, polariscopic apparatus, and sugar analyses.

SPECTROSCOPY.

The investigations made by this section during the past year relate chiefly to improvements in the methods of testing optical instruments and materials, and to the methods of constructing reproducible primary standards of luminous intensity, of pure color, and of spectral intensity. A resolving power test for objectives and optical instruments was developed and described in the Bulletin. A new method of computing lens corrections has been devised and applied, and methods for the complete testing of high-grade photographic objectives have also been developed and outlined.

The study of the luminous equivalent of radiation was completed and published during the year. This problem underlies the theory of light measurement and the establishment of a rational absolute scale of luminous intensity. A method has also been developed for constructing a rational color scale and establishing primary standards of pure color. This is an important subject, and one which has many industrial and technical applications. Conducting helium has been further studied as a standard of total intensity and spectral intensity. A source giving discrete spectral lines of fixed known relative intensity is of great importance in the testing of photographic plates and other work.

A precision optical bench, specially designed for determining the oblique aberrations of high-grade lenses, has been installed and is in frequent use. Samples of optical glass were received for test, some of which were for use in large astronomical telescopes. Fifteen photographic plates were examined as to size and uniformity of grain and resolution of image. A series of secondary color standards was examined and compared with the primary standard colors. Many spectroscopic tests have been made for different chemists, and numerous intending purchasers have sought the advice of the Bureau before buying various optical instruments.

RADIOMETRY.

The radiometric work of the Bureau includes the investigation of the laws of radiation of various substances, and also the instruments and methods used in such investigations. During the past year considerable time was devoted to the improvement and testing of radiation meters. This is of the greatest importance in the investigation of the radiation laws of a uniformly heated cavity, or so-called black body, in which the emissivity is independent of the composition of the inclosure. The accurate determination of the radiation constants of the black body is therefore of the highest importance, for it is the only standard of reference in numerous fields of research. One promising application of these radiation constants is in the extension of the scale of temperature beyond the present limits. With this end in view, a series of preliminary spectro-radiometric measurements have been made, the results of which would have been considered highly satisfactory when compared with previous work. However, since the object in view is the highest attainable accuracy with instruments and methods now available, this investigation is being taken up anew with an improved vacuum bolometer and with various other instrumental improvements.

In addition to this problem, further observations were made on the selective emission of solids, and on the lack of sensibility of the eye to red light when apparently watching two incandescent lamps in color. Additional data on "water of crystallization" was also obtained. This is an important problem in mineralogy, and, since the spectro-radiometric examination of minerals seems to be able to give us information not obtainable by chemical and other physical tests, further work has been undertaken on this subject.

POLARIMETRY.

The work of this section has been marked during the year by an increased interest both by scientists and manufacturers, due to the fact that the Bureau is able to make immediate practical application of its research work in this growing field, thereby directing public attention to the results attained. The importance of applying the most accurate scientific methods of polarimetry to the collection of the revenue on sugar and to industrial processes is increasing. For this purpose, among other things, large quantities of pure sugar are indispensable. The problem of producing relatively large quantities of this material, of unexcelled purity, has been successfully solved by recrystallization in a vacuum. The demand on the Bureau for samples of this sugar is rapidly growing and many samples were sent out during the year for scientific use. The distribution of such samples for standardization purposes marks an important step in optical measurements and calorimetry.

A further study of the quartz compensating polariscope has been completed and the results published in the Bulletin. In consequence of this work it now seems practicable to produce an instrument of the compensating type with an adjustable polarization angle as large as 15°, thereby giving sufficient light to permit of the direct polarization of the darkest sugars and molasses, and eliminating the litigation which results from the inaccurate methods now in use.

Much time has been spent in further study of methods of producing monochromatic light of great intensity. Suitable monochromatic sources, uniformly distributed throughout the visible spectrum, are indispensable for polarimetric measurements. A combination of sources and methods of purification has now been obtained, making it unnecessary to depend on the uncertain sunlight of this locality.

The cooperation with the customs service in increasing the accuracy of the tests on dutiable sugars has been continued with gratifying results. The regulations for this work prepared by the experts from the Bureau cover the methods, instruments, and procedure, and rigidly define the scientific basis upon which the revenue is collected. A new polarizing tube suitable for the customs service and commercial testing has been designed. One thousand three hundred and six analyses were made during the year.

DIVISION V.—CHEMISTRY.

The Chemical Division has continued, with a somewhat limited force, to assist the different bureaus of the Government in checking their supplies and reaching conclusions, in some instances, on which to base future specifications. This work has grown since the establishment, during the year, of the general supply committee for the government departments. Much of the labor of testing supplies offered by bidders under the new system of purchase has devolved upon this Bureau, and the Chemical Division has had its full share. The routine testing of this division has more or less directly concerned every department and bureau of the service. Equally important with the testing is the study of the practical and scientific basis for specifications, the desirable qualities in materials, their accurate description in terms of physical and chemical properties which may be measured or tested by standard tests and analyses, standard methods of sampling, standard instruments and methods of testing, and finally the preparation of standard specifications for the guidance of the manufacturer and purchaser. This work should eventually lead to the adoption of such specifications for all materials purchased, and definite tests, so as to avoid the personal element in disagreements. With the increased working force authorized by Congress for the coming year it is hoped to be able to meet most of the demands arising from this source.

Among the important studies that the Bureau has undertaken for the Government may be mentioned an extended experimental research upon certain properties of celluloid and other pyroxalin plastics for the Steamboat-Inspection Service. Besides several other investigations of less magnitude there were completed during the year about 2,116 tests and analyses, which may be classified broadly as follows: (1) Writing and printing inks, paper, and mucilage, 1,732, of which the larger part were of papers for the Government Printing Office; (2) lubricating and other oils, turpentine, paints, and related materials, 306; (3) miscellaneous materials, such as rubber, boiler compounds, brines, flooring compositions, boiler tubes, stereotype metal and other alloys, steels, glass, silks, and a variety of other materials, 78.

The distribution of analyzed and certified standard samples of steels and irons of definite composition has met with great success, the demand increasing 30 per cent over the previous year. This work, undertaken at the request of the American Foundrymen's Association, enables the metallurgical industry to keep constant and reliable check on their analyses, upon which depend so largely the success of the industry. The number of standard iron and steel samples furnished was 687, against 465 the year before. Provision has been made for adding largely to the variety of these analyzed samples in order to meet the growing calls from various directions. Cooperative relations have been entered into with the American Brass Founders' Association, at its request, with the view of furnishing analyzed samples of brasses and other alloys and the improvement of methods of brass analysis in that industry.

The Chemical Division will also cooperate with other divisions of the Bureau in certain very important problems, such as (1) the preparation and testing of pure materials used in the construction of standards of electromotive force; (2) the preparation of several substances of the very highest degree of purity and the determination of the physical constants of these substances for use as standards in calorimetric work; (3) the study of flame standards for use in photometric work; (4) the determination of the physical properties of the metals and alloys used in the arts.

ENGINEERING INSTRUMENTS AND MATERIALS.

The standardization of engineering instruments and testing of materials showed a marked increase over the previous year. The demand for the calibration of engineering instruments and the determination of the physical properties of materials has taken practically the entire time of the available assistants, thus restricting the attention given to investigations and the development of methods.

Much time and labor have been devoted to the collation of reliable information and data for the government departments and the public. The diffusion of such knowledge is of decided aid to industrial and engineering progress. In many cases, however, sufficient dependable information is not available, and the Bureau has been urged to take up investigations which would furnish it, including such subjects as methods of measuring gases at high velocities; properties of metals and alloys; standard specifications for leather belting; relative merits of oak and hemlock tanned leather; rubber hose; bookbinding cloths; relative life of iron and steel pipe; prevention and removal of efflorescence on brick walls; standard textiles; wool conditioning and sampling; efficiency of water meters, and discharge capacity of different sizes of pipe; relative merits of paper-testing apparatus; standard methods of testing paper and paper fibers, and dynamic tests of metals.

Many special researches have been delayed during the year by extensive demands along other lines. However, an investigation of the present methods of calibrating anemometers is progressing, and recent advances in aerial navigation accentuate the need for this work, especially for higher velocities. Further work upon bookbinding cloths has been completed and is available for publication. The results of this research have been practically applied in the binding of government publications, and book cloths are now being manufactured upon the standard specifications thus prepared. Many public libraries are buying their cloths for bookbinding upon these standard specifications and the demand for the reports of this investigation shows how quickly the value of such researches is appreciated and utilized. A study of methods of determining the absorption and adhesion of mortar to specimens of different absorption capacities is underway, the results of which are not yet ready for publication. Four American paper testers, for determining bursting strength, are being studied to determine the effects of humidity, rate of operation, intensity of clamping, and effect of imperfections. The verification of the phloroglucine method for determining the percentage of ground wood in papers is complete and ready for publication. While more exact than microscopic analysis by fiber staining, the phloroglucine is best applicable to grades of paper for which the microscopic method is fairly adequate. It was possible to begin the investigation of lubricants. The action of a standard oil tester is being studied to determine the conditions which influence its readings, the possibility of securing concordant results, and to investigate the relation between viscosity, flash point, and coefficient of friction. This work is essential to the formulation of standard tests and specification for oils, a matter which deserves early attention.

The tests of engineering instruments and materials increased more than 100 per cent over the previous year, and included 52 tests of instruments, such as anemometers, manometers, paper testers, pressure gages, gas cylinders, and other apparatus; 84 samples of metals, such as steel and iron, electric welds (steel), manganese bronze, wire (special alloy), lead pipe, and flexible copper hose; 100 samples of building materials, such as cement, concrete, brick, composition flooring, rock, terra cotta, and wood; 3,191 samples of papers, textiles, and cordage; 96 samples of rubber and leather goods; 66 lubricants—machine, engine, and dynamo oils; and 42 miscellaneous materials, adhesives, etc., in all, 3,580 tests of materials, as compared with 1,716 in the preceding year. The increase in testing has been general in all branches of the work, the most marked increase being in textiles and papers.

Recent additions to the equipment will enable the Bureau to undertake some valuable investigations. Among the new apparatus acquired for metal investigations are a Keep hardness tester, a Ballentine hardness tester, a Brinell hardness tester, a Shore scleroscope, a cold-bending machine (motor driven), and a Souther alternating stress machine. A high-grade microscope, with a mechanical state, has been added to the equipment for fiber work. A Riehlé cement tester and a 12-spool yarn reel have been delivered, and orders are outstanding for a Turner-Landgraf alternating-impact machine, a cement permeability apparatus, a 1,000,000-pound special Riehlé crushing machine, a 230,000-pound improved Emery testing machine, 150-meter kilogram torsion machine, a Danto Roguet conditioning apparatus, a Corté yarn reel, and Corté conditioning oven.

LIBRARY.

An important part of the equipment of the Bureau is the library, which now contains 4,941 technical and scientific works, mainly in physics, chemistry, mathematics, and engineering. During the year 380 volumes were added to the library and 180 periodical publications were regularly received.

The library is catalogued upon the classification used at the Library of Congress, the printed cards issued by that library being used as far as available. The facilities of the scientific libraries in Washington are also available for reference. Access to the complete literature in any technical subject is essential to the best work, especially in new investigations.

PUBLICATIONS.

During the year 23 technical papers relating to standards and precision measurements were published, giving the results of researches and investigations conducted by the Bureau of Standards. Six bureau circulars were published giving information as to methods of testing specifications for standards and measuring instruments and regulations in regard to their verification, i. e., Circular 13, "Standard specifications for the purchase of incandescent electric lamps" (revised to include the new high-efficiency filament lamps); Circular 14, "Analyzed irons and steels—Methods of analysis;" Circular 15, "A proposed international unit of light;" Circular 16, "The testing of hydrometers;" Circular 17, "Magnetic testing;" and Circular 18, "United States standard sheet-metal gauge." A new edition of the chart of the international metric system was also issued.

BUILDINGS AND GROUNDS.

The contract for the new laboratory building authorized by Congress was awarded early in the year, and the construction is nearly completed. Plans are now being drawn for the installation of the apparatus and machinery. The new laboratory harmonizes in style, appearance, and location with the other buildings, and has been designed in details to meet the needs of the work.

The new laboratory has four stories and is of fireproof construction, of brick trimmed with limestone. The first floor is especially suitable for heavy testing apparatus and for work requiring great stability. The large testing machine will be installed in the new building. It is expected that the laboratory will be ready for use early in 1910.

The grading has been continued along the lines previously laid out, but additional roadway and walks will be needed for the new building.

SUMMARY OF TESTS.

The work of the Bureau involves, among other things, a large amount of testing of standards, measuring instruments, and materials. A certain amount of this work is already organized upon an accurate routine basis. Much of it, however, involves investigation of the scientific principles underlying the test, a study of existing methods, and the development of new standard tests of known accuracy. In such cases the research which must precede the actual testing is a most important function of the Bureau. For the test a reasonable fee is charged, except when made for the National or State Governments. The corresponding amounts for government testing are of interest, however, and are added to the statement of tests which follows.

NUMBER AND VALUE OF TESTS COMPLETED, FISCAL YEAR ENDED JUNE 30, 1909.

Nature of test.	For Government.		For public.		Total.	
	Number.	Value.	Number.	Value.	Number.	Value.
Length	460	$1,091.10	106	$257.80	566	$1,348.90
Mass	1,635	700.55	463	290.95	2,098	991.50
Capacity	10,386	3,196.15	379	322.90	10,765	3,519.05
Temperature	3,812	1,521.25	9,129	1,926.37	12,941	3,447.62
Optical	1,287	1,304.00	29	58.00	1,316	1,362.00
Engineering	2,082	7,190.10	122	269.63	2,204	7,459.73
Electrical	151	531.70	314	1,159.70	465	1,691.40
Photometry	2,668	5,226.20	1,256	336.50	3,924	5,562.70
Chemical	1,972	7,681.26	549	925.60	2,521	8,606.86
Miscellaneous	1,176	900.75	113	101.60	1,289	1,002.35
Total	25,629	29,343.06	12,460	5,649.05	38,089	34,992.11

Besides the foregoing the Bureau inspected 628,400 incandescent lamps at various factories for other departments of the Government, the fees for which would amount to $3,142 additional, making the total value of work done for the Government $32,485.06.

The number of tests made for the Government in the fiscal year 1909, exclusive of lamps inspected at factory, was 159 per cent greater than in the preceding year, and the number of tests for the public was 15 per cent greater, the increase in tests for both Government and public amounting to 84 per cent.

The receipts for tests were as follows:

Total receipts, 1909		$6,001.06
Received prior to July 1, 1908, for tests completed in fiscal year 1909.	$90.98	
Outstanding fees	124.40	
Canceled test and refunds	16.92	
		232.30
		6,233.36
Received for tests in progress at close of fiscal year 1908-9		584.31
Fees for tests completed, 1908-9		5,649.05

FINANCIAL STATEMENT.

The following statement shows the amount and object of each appropriation provided for the Bureau for the fiscal year 1909, the disbursement during the year, the amount of unfilled and unpaid orders at the close of the year, and the unexpended balance remaining at the close of business June 30, 1909:

Appropriation.	Appropriated.	Disbursed.	Liability.	Balance.
Salaries	$141,540.00	$138,765.11		$2,774.89
Equipment	41,000.00	30,131.53	$10,684.92	183.55
General expenses	15,000.00	12,737.49	1,221.65	1,040.86
Grounds	3,000.00	2,997.22		2.78
Total	200,540.00	184,631.35	11,906.57	4,002.08

The following statement shows the condition of the appropriations for the two fiscal years preceding 1909 at the close of business June 30, 1909:

Appropriation.	1907.				1908.			
	Appropriated.	Disbursed.	Liability.	Balance.	Appropriated.	Disbursed.	Liability.	Balance.
Salaries	$111,440.00	$108,399.59	....	$3,040.41	$130,620.00	$123,874.24	....	$6,745.76
Equipment	41,000.00	40,502.49	$429.73	67.78	41,000.00	40,061.21	$607.13	341.66
General expenses	15,027.50	15,023.48	....	4.02	15,000.00	14,883.97	19.26	96.77
Grounds	3,000.00	3,000.00	....	....	3,000.00	2,982.86	....	17.14
Total	170,467.50	166,925.56	429.73	3,112.21	189,620.00	181,792.28	626.39	7,201.33

Respectfully,

S. W. STRATTON, *Director.*

To Hon. CHARLES NAGEL,
Secretary of Commerce and Labor.

REPORT

OF THE

CHIEF, DIVISION OF PRINTING AND PUBLICATIONS

DEPARTMENT OF COMMERCE AND LABOR,
OFFICE OF THE SECRETARY,
Washington, December 31, 1909.

To whom it may concern:

It is hereby ordered that beginning with January 1, 1910, the name of the Division of Printing and Publications of the Department of Commerce and Labor be changed to the Division of Publications.

CHARLES NAGEL,
Secretary.

REPORT

OF THE

CHIEF, DIVISION OF PRINTING AND PUBLICATIONS.

Department of Commerce and Labor,
Division of Printing and Publications,
Washington, September 23, 1909.

Sir: I have the honor to submit herewith my annual report as Chief of the Division of Printing and Publications for the fiscal year ended June 30, 1909. As shown herein, the publication work of the Department continues to increase, the past year being the first in the history of the Department wherein practically the entire allotment of the appropriation for printing and binding was expended.

APPROPRIATIONS AND EXPENDITURES.

Appropriations.—The Department's allotment of the appropriation for printing and binding for the fiscal year ended June 30, 1909, was $500,000. Of this amount $125,000 was for printing for the Bureau of the Census, which Bureau dealt directly with the Government Printing Office, and for which, therefore, no statement can be made regarding expenditures.

Expenditures.—Of the $375,000 available for printing and binding for the offices, bureaus, and services of the Department other than the Bureau of the Census, $374,939.91 was paid to the Public Printer, leaving a balance of $60.09 to be covered into the Treasury. The increase in expenditures for printing and binding over the previous fiscal year was $31,977.55, or 9.32 per cent.

The following table gives the comparative cost of the printing and binding for the several offices, bureaus, and services other than the Bureau of the Census during the fiscal years 1908 and 1909 and the estimated cost of work not completed June 30, 1909:

Office, bureau, or service.	Cost of work delivered—		Increase (+) or decrease (−).		Estimated cost of work not completed June 30, 1909.
	1908	1909			
	Dollars.	*Dollars.*	*Dollars.*	*Per cent.*	*Dollars.*
Office of the Secretary	16,081.23	17,038.22	+ 1,006.99	+ 6.28	70.56
Bureau of Corporations	16,896.44	9,511.09	− 7,385.35	−43.70	502.21
Bureau of Manufactures	48,711.51	57,466.97	+ 8,755.46	+17.97	2,091.08
Bureau of Statistics	83,630.12	84,226.61	+ 596.49	+ 7.13	8,589.19
Bureau of Labor	32,499.41	42,624.73	+10,175.32	+31.15	48.66
Coast and Geodetic Survey	21,927.16	39,291.42	+17,364.26	+79.19	7,078.35
Bureau of Fisheries	8,421.20	9,378.22	+ 957.02	+11.36	2,946.81
Bureau of Navigation	16,628.94	10,616.20	− 6,012.74	−36.15	....
Shipping Service	3,502.88	2,012.05	− 1,490.83	−42.56	....
Office, Supervising Inspector-General, Steamboat-Inspection Service	2,988.89	5,619.66	+ 2,630.77	+88.01	....
Steamboat-Inspection Service	6,216.98	12,095.21	+ 5,878.23	+94.55	922.60
Light-House Board	20,422.81	25,174.58	+ 4,751.77	+23.21	98.59
Light-House Establishment	9,694.96	11,279.69	+ 1,584.73	+16.34	475.53
Bureau of Immigration and Naturalization	4,380.86	4,843.66	+ 462.80	+10.56	....
Immigration Service	22,745.34	13,483.35	− 9,261.99	−40.72	754.43
Naturalization Service	6,189.32	9,769.78	+ 3,580.46	+57.84	2,827.25
Division of Information	2,218.18	3,610.41	+ 1,392.23	+62.76	14.40
Bureau of Standards	10,843.13	8,360.64	− 2,482.49	−22.89	268.46
Customs Service	9,013.00	8,537.42	− 475.58	− 5.27	600.86
Total	342,962.36	374,989.91	+31,977.55	+ 9.32	27,288.98

In order that the expenditures for printing and binding during the past year may be compared with similar expenditures for the preceding five years, the following table is submitted, showing by offices, bureaus, and services the cost to the Department, the cost to Congress, and the total cost of all printing, exclusive of that for the Bureau of the Census, originating in the Department of Commerce and Labor in the fiscal years ended June 30, from 1904 to 1909:

Cost to Department, cost to Congress, and total cost of all printing originating in the Department of Commerce and Labor for the fiscal years ended June 30, 1904–1909.

Office, bureau, or service, and how charged.	1904	1905	1906	1907	1908	1909
Office of the Secretary:						
To Department	$13,840.14	$19,254.24	$15,365.95	$13,445.30	$16,031.23	$17,038.22
To Congress	....	6,308.55	3,197.78	626.35	944.97	1,200.95
Total	13,840.14	25,562.79	18,563.73	14,071.65	16,976.20	18,239.17
Bureau of Corporations:						
To Department	692.18	2,446.05	2,112.95	4,434.24	16,896.44	9,511.09
To Congress	....	3,034.80	18.87	....	....	....
Total	692.18	5,480.85	2,131.82	4,434.24	16,896.44	9,511.09
Bureau of Manufactures:						
To Department	....	94.87	31,485.21	47,303.21	48,711.51	57,466.97
To Congress	....	....	10,231.59	2,709.49	2,863.01	2,974.70
Total	....	94.87	41,716.80	50,012.70	51,574.52	60,441.67
Bureau of Statistics:						
To Department	54,723.08	71,826.49	26,762.91	74,649.76	83,630.12	84,226.61
To Congress	126,679.44	126,397.27	92,072.62	8,278.96	6,851.87	7,553.78
Total	[a]181,402.52	[b]198,223.76	118,835.53	82,928.72	90,481.99	91,780.39
Bureau of Labor:						
To Department	2,909.34	6,230.42	6,067.74	38,485.21	32,499.91	42,624.73
To Congress	12,127.18	70,344.23	47,697.55	4,009.40	505.38	9,575.22
Total	15,036.52	76,574.65	53,765.29	42,494.61	33,005.29	52,199.95
Coast and Geodetic Survey:						
To Department	18,751.50	23,215.21	13,560.74	26,860.62	21,927.16	39,291.42
To Congress	9,255.10	8,686.50	4,414.15	547.41	1,379.52	686.90
Total	28,006.60	31,901.71	17,974.89	27,408.03	23,306.68	39,978.32
Bureau of Fisheries:						
To Department	2,989.06	2,356.38	2,263.72	12,111.64	8,421.20	9,378.22
To Congress	7,180.60	20,612.90	66,577.33	9,996.13	5,544.76	2,427.09
Total	10,169.66	22,969.28	68,841.05	22,107.77	13,965.96	11,805.31
Bureau of Navigation:						
To Department	1,030.87	1,891.62	1,605.72	13,134.05	16,628.94	10,616.20
To Congress	10,804.34	6,943.15	13,055.78	417.92	3,448.10	1,085.44
Total	11,835.21	8,834.77	14,661.50	13,551.97	20,077.04	11,701.64
Shipping Service:						
To Department	596.37	2,301.17	1,698.90	1,545.18	8,502.88	2,012.05
Steamboat-Inspection Service (Office):						
To Department	1,247.78	3,404.66	2,811.42	3,783.02	2,988.89	5,619.66
Steamboat-Inspection Service:						
To Department	5,698.53	7,618.60	8,858.98	10,308.15	6,216.98	12,096.21
Light-House Board:						
To Department	10,184.67	21,930.51	17,814.48	22,708.62	20,422.81	25,174.58
Light-House Establishment:						
To Department	4,435.16	8,527.01	7,641.78	6,717.56	9,694.96	11,279.69
Bureau of Immigration and Naturalization:						
To Department	2,842.88	4,399.45	2,619.31	4,117.28	4,380.86	4,843.66
To Congress	1,573.53	2,326.08	....	....	....	....
Total	4,416.41	6,725.53	2,619.31	4,117.28	4,380.86	4,843.66

[a] $44,416.30 of this amount is for printing Consular Reports.
[b] $60,420.67 of this amount is for printing Consular Reports.

Cost to Department, cost to Congress, and total cost of all printing originating in the Department of Commerce and Labor, etc.—Continued.

Office, bureau, or service, and how charged.	1904	1905	1906	1907	1908	1909
Immigration Service:						
To Department	$12,185.78	$13,157.24	$14,920.54	$18,989.37	$22,745.34	$13,483.85
Naturalization Service:						
To Department				15,855.96	6,189.32	9,769.78
Division of Information:						
To Department					2,218.18	3,610.41
Bureau of Standards:						
To Department	2,977.44	7,576.41	5,451.34	9,251.33	10,843.13	8,360.64
Customs Service:						
To Department	6,925.11	13,055.75	11,520.55	8,489.60	9,013.00	8,537.42
Total to Department	142,024.89	209,286.08	172,562.19	332,185.05	342,962.36	374,939.91
Total to Congress	167,620.19	244,653.48	237,265.67	26,585.66	21,537.61	25,504.08
Grand total	309,645.08	453,939.56	409,827.86	358,770.71	364,499.97	400,443.99

As shown by the table, the greater part of the cost for printing for some of the bureaus in the years 1904, 1905, and 1906 was charged to Congress. This was due to the fact that during those years the first and principal cost—that for composition and electrotyping—for all publications printed under legislative direction was borne by Congress. Under the provisions of Public Resolution No. 13, approved March 30, 1906, however, that cost was transferred to the Department, where it very properly belongs. This accounts for the decrease in subsequent years in the charges against Congress and the corresponding increase in those against the departmental allotments.

An examination of the figures presented in the table shows that, except for 1904 when printed supplies on hand reduced the purchases, the low-water mark in the Department's printing bill was reached in the fiscal year ended June 30, 1907, when the total cost amounted to only $358,770.71, as compared with $453,939.56 in 1905 and $409,827.86 in 1906. The decrease in the cost of printing in 1906 and 1907 as compared with 1905 is partly a result of the Executive order of January 20, 1906, directing the appointment in each department of a committee on printing and publications, a part of whose duties it should be to see that unnecessary matter is excluded from reports and publications; to see that copy is carefully edited before rather than after going to the Printing Office; to do away with the publication of unnecessary tables and to require that statistical matter be published in condensed and intelligible form; to supervise the preparation of blank forms; to prevent duplication of printing by different bureaus; and to exclude unnecessary illustrations from department publications. The Division had prior to the date of this Executive order worked along the lines indicated therein, and had been moderately successful. As a result of its efforts, supplemented by the work of the committee appointed in this Department, the printing bills for 1906 and 1907 decreased about $50,000 a year, or about $100,000 in the two years. Since 1907 there has been a gradual increase in the cost of this branch of the service, due to increased activities in certain of the older bureaus; to the establishment of the Divisions of Naturalization and Information; to the increase in the number of blank forms supplied to the Steamboat-Inspection Service, required by the act of Congress approved May 16, 1906, for the regulation of motor boats; and to the act of Congress approved May 30, 1908, entitled "An act granting to certain employees of the United States the right to receive from it compensation for injuries sustained in the course of their employment."

While the figures for 1904 are less than those for 1907, it should be borne in mind that the cost of printing for the former year does not include the total cost of printed supplies furnished to the bureaus and services that were transferred from the Treasury Department to this Department on July 1, 1903, as there were large quantities of these supplies turned over to the Department for the bureaus and services transferred. Also some of the bureaus and offices provided for in the organic act or transferred to the Department required little or no printing during the first year of the Department's existence.

VOLUME OF PRINTING AND BINDING.

The amount of each class of work called for by requisitions on the Public Printer during the year and a comparison with amounts of similar classes ordered during the preceding fiscal year are shown in the following statement:

Class.	1908	1909	Increase (+) or decrease (−).	
	Number.	*Number.*	*Number.*	*Per cent.*
Blank forms	13,846,706	12,415,840	−1,430,866	−10.33
Reports, pamphlets, etc	2,996,420	4,261,069	+1,264,649	+42.63
Letter heads	1,373,500	2,165,250	+ 791,750	+57.64
Circulars and decisions	261,620	409,450	+ 147,830	+56.50
Envelopes	101,122	78,824	− 22,298	−22.05
Blank books	25,178	22,502	− 2,676	−10.62
Miscellaneous books (binding)	2,855	2,570	− 285	− 9.98

An appreciable increase in the class of printing which best indicates the increased activity of the Department—viz, reports, pamphlets, etc.—is shown by these figures.

ORDERS FOR ENVELOPES AND PAPER.

During the year orders to the number of 420 were placed with the envelope contractors for the making and printing of 6,686,750 penalty envelopes (an increase of 1,016,675, or 17.93 per cent) for the use of the various offices, bureaus, and services of the Department. There were also placed with the contractors orders for the making of 60,000 sheets of distinctive safety paper on which to print certificates of naturalization and 90,000 sheets of special water-marked paper on which to print declarations of intention and petitions for naturalization.

BLANK BOOKS AND FORMS SUPPLIED TO THE OUTSIDE SERVICES.

There were filled during the last fiscal year 7,610 requisitions from the outside services of the Department, calling for 4,633,721 blank forms, as compared with 6,386,522 for 1908, or a decrease of 1,752,801, and 233,003 blank books and pamphlets, as compared with 99,152 for 1908, or an increase of 133,851. The decrease in the issue of forms was almost wholly in the Immigration Service, which took 1,720,350 less than in 1908; while the increase in the distribution of books and pamphlets was largely in the Steamboat-Inspection Service, which used 126,120 more than in 1908, due primarily to the act of Congress approved May 16, 1906, providing for the regulation of motor boats.

To fill these requisitions required the packing and mailing of 19,458 packages and boxes, weighing 263,926 pounds, or 132 tons, of which 15,196, weighing 75,980 pounds, were sent by regular mail, and 4,262, weighing 187,946 pounds, by registered mail. This was an increase of 4,077, or 26.51 per cent, in the number and a slight increase in the weight of packages and boxes sent out.

The following statement shows the number of books and blanks sent to each of the outside services:

Service.		Books.	Blanks.
Customs Service:			
General		10,569	423,672
New York		538	89,300
Immigration Service:			
General		1,360	1,168,754
New York		81	506,800
Shipping Service		3,386	74,505
Steamboat-Inspection Service		185,049	323,672
Light-House Establishment		4,096	526,867
Clerks of courts:			
Naturalization forms		19,088	892,300
Books of certificates of naturalization—			
549 of 10 certificates	5,490	1,477	....
306 of 25 certificates	7,650		
622 of 50 certificates	31,100		
Total certificates	44,240		
Miscellaneous		7,359	627,851
Total		233,003	4,633,721

PRINTED STATIONERY SUPPLIED TO BUREAUS, OFFICES, AND SERVICES.

During the year 615 requisitions for printed stationery were filled, 308 of which were from bureaus and offices of the Department in Washington and 307 from the outside services. To fill the requisitions from the outside services required the sending out of 629 packages and boxes, weighing 46,009 pounds, or 23 tons. Of these, 347 (weighing 3,178 pounds) were sent by ordinary mail; 271 (weighing 40,454 pounds) by registered mail, and 11 (weighing 2,377 pounds) by freight.

The following statement shows the quantity of each class of printed stationery supplied by the Division:

Items.	Quantity.	Items.	Quantity.
Envelopes (white, 2,128,250; manila, 4,558,500)	6,686,750	Stenographers' notebooks	5,779
Letter heads	2,118,000	Blank books	7,007
Memorandum sheets	3,138,700	Blank forms	92,239
Embossed letter heads	47,250	Record cards	399,800
Embossed envelopes	36,500	Guide cards	87,673
		Vertical folders	86,900

Adding the amount of mail matter sent out in the filling of requisitions for printed stationery to the amount sent out in filling requisitions for blank forms, it will be seen that the Division sent out during the last fiscal year 20,087 packages and boxes, weighing 309,935 pounds, or a little less than 155 tons, as compared with 16,197 packages and boxes, weighing 309,440 pounds, the preceding year. The figures for 1909 show an average of 1,040 pounds of mail for each working day of the year, exclusive of reports, documents, and pamphlets, and first-class mail matter of over 10,000 pieces.

WORK OF THE EDITORIAL SECTION.

Exclusive of the job work and blank forms, all of which work receives careful scrutiny in the Division, the work of the editorial section during the past year involved the editing or examination and preparation for the printer of 51,396 folios of copy, the reading and revising of proofs of 34,528 printed pages, and the indexing of 1,190 printed pages. This work is largely in excess of that heretofore attempted by this section, and would have been impossible of accomplishment but for the assistance rendered by some of the bureaus in matters of detail. However, much the greater part of this material was critically scrutinized in both original copy and in proof, while all of it received sufficient examination to convince the Division that there was no serious violation of the regulations of the Department governing the standard of its publications.

The experience of another year confirms my former conviction that every folio of manuscript should be carefully read and edited and every proof read and revised equally as carefully in the Division of Printing and Publications before being sent to the printer. This can not be done with the force at present available for this class of work, but it is believed that the further beneficial results which are possible of accomplishment would justify an addition of several capable clerks to the editorial force of the Division, and the wisdom of this addition is submitted for your consideration.

REMOVAL OF DIVISION.

An especially gratifying feature of the past year was the removal of the Division to the Department Annex, 462–464 Louisiana avenue NW., where quarters splendidly arranged for conveniently, expeditiously, and economically handling its work had been provided. These quarters are not only sufficient for present requirements, but will provide for some time for the constantly increasing work of the Division. The good light and ventilation, comfortable and commodious working rooms, and pleasant surroundings of the new location are greatly appreciated improvements over the crowded and uncomfortable quarters of which I have complained in each of my former annual reports.

CHANGE IN NAME OF DIVISION.

In my annual report for 1908 I recommended that the designation of the Division of Printing be changed to "Division of Publications," in order that the name might convey to those with whom the Division has relations a more definite idea of its purposes and work. After consideration of the recommendation and consultation with the heads of the several bureaus of the Department, the Secretary, on November 24, 1908, issued an order changing the name of the Division to "Division of Printing and Publications."

While this name conveys a less confused idea of the duties of the Division, it is inconveniently long, and it is believed that the shorter name, "Division of Publications," would better and with greater economy effect the objects I had in view in recommending the change. It was suggested at the time the change in name was under consideration that the adoption of this designation might confuse the work of this Division with that of the Publications Division of the Bureau of the Census, but this fear would appear to be groundless when it is considered that the relations of this Division, as a part of the Office of the Secretary, extend not only to all the bureaus, offices, and services of the Department, but also in large measure to the public, while those of a division in a bureau rarely, if ever, extend beyond the bureau itself. Therefore, after an experience of several months with the name "Division of Printing and Publications," and giving due weight to the considerations which no doubt influenced the Secretary in the issuance of the order, the recommendation made last year that the name "Division of Publications" be adopted is respectfully renewed.

DISTRIBUTION OF PUBLICATIONS.

The Department's quota of public acts, Statutes at Large, Congressional Records and Directories, bills and resolutions, postal guides, etc., were apportioned and sent out by the Division, as were also all Department circulars and decisions, and reports and other publications emanating from the Office of the Secretary.

The Department has for some time had under advisement the transferring to this Division of the work in connection with the mailing of the publications of bureaus of the Department occupying rented quarters. Now that the Division is properly equipped in the matter of space, it is believed that the time has arrived when it can undertake this work to the advantage of the bureaus concerned, and it is recommended that the necessary steps to this end be taken.

MISCELLANEOUS.

Advertising.—During the past year 326 authorizations for publishing advertisements in newspapers and periodicals throughout the country were issued, and the vouchers in payment for this advertising, representing an expenditure of about $2,700, were passed upon by the Division.

Digest of Congressional Record.—The Division makes each day during sessions of Congress a digest of the Congressional Record, in triplicate, for the use of the Secretary, the Assistant Secretary, and the Chief Clerk. This work was done, as usual, during the past year, but the Division was placed at some disadvantage by its removal to its new quarters, outside the main building of the Department, which prevented its placing this digest upon the desks of the officials named at as early an hour as formerly. In the future, however, it is proposed to remedy this condition, if possible, by having one of the clerks report at the Division for this work at an early hour in the morning providing that copies of the Record for digesting purposes may be obtained at that time.

ESTIMATES.

The following estimates for the personnel of the Division of Printing and Publications and for printing and binding for the Department during the fiscal year 1911 are respectfully submitted with the request that they be included in the Department's estimates to Congress:

PERSONNEL.

Chief, Division of Printing and Publications (increase of $700 submitted)	$2,700
2 clerks of class 4	3,600
1 clerk of class 3 (submitted in lieu of 1 clerk of class 2)	1,600
3 clerks of class 2 (1 omitted as above)	4,200
3 clerks of class 1 (1 additional submitted in lieu of 1 clerk at $1,000)	3,600
3 clerks, at $1,000 each (1 omitted as above)	3,000
1 clerk, at $900	900
3 assistant messengers, at $720 each	2,160
1 laborer, at $660	660
1 messenger boy, at $480	480
Total	22,900

As compared with present salaries in this Division, these estimates provide for increases amounting to only $1,100. One clerk is asked for at $1,600 in lieu of one at $1,400, and one additional clerk at $1,200 in lieu of one at $1,000.

An increase of $700 is recommended for the Chief of the Division of Printing and Publications to conform with the estimates submitted by the Department in accordance with the reclassification proposed by the Committee on Department Methods.

The increases asked for in salaries in the clerical grades are in consonance with similar recommendations emanating from this Division for the past four years. These increases are desired in order that the employees of this Office who are engaged on editorial work may be paid salaries more nearly commensurate with their work. Attention is particularly directed to the fact that none of the editors or copy preparers in this Division is receiving more than $1,400 per annum, which should be the minimum rather than the maximum salary, and is so regarded by other Departments and independent Government establishments as well as by private employers. Editors such as our work requires must have good educations, a high degree of technical training, and a wide general knowledge, as well as the faculty—acquired only from much experience—logically to analyze and readily to comprehend what is read, and to detect errors, inaccuracies, and inconsistencies that would escape the ordinary reader, and which would detract from the value of the publications and might result in embarrassment to the Department. Men thus qualified can not be secured and retained at the salaries now being paid by the Department.

PRINTING AND BINDING.

For the Department of Commerce and Labor, including the Coast and Geodetic Survey, three hundred and seventy-five thousand dollars: *Provided*, That no part of this allotment shall be expended for printing and binding for the Bureau of the Census.

The above estimate is the same as the appropriation for the fiscal year 1910. It was originally made in April, 1909, and was based upon the amount expended for the fiscal year 1908, and upon the further fact that it was the desire of the Administration that all estimates be placed at as low a figure as possible for the fiscal year to end June 30, 1910. However, it is deemed proper to state that only the very greatest economy in printing will permit the confining of these expenditures to the sum named, and that any extraordinary drain upon the printing allotment will necessitate a request later for a deficiency appropriation. The sum of $375,000 is the absolute minimum that will be required for the printing of the Department during the fiscal year 1911, and it is the ambition rather than the expectation of the Division to keep within this limit.

CONCLUSION.

In conclusion, I desire to emphasize particularly the recommendation in this and several former annual reports that there be an enlargement of the editorial force of this Division, and that there be centered in it the greater part of the reading now intrusted to the bureaus.

The publications of the Department of Commerce and Labor are unique in that they treat of matters affecting and of interest to practically every strata of society. Also the character of many of them is such that accuracy and quick dissemination are absolutely essential. The importance of a corps of experienced, well-trained editors and proof readers, who are quick to detect faults and competent to remedy them, is therefore obvious. The Division already has the nucleus for such a corps, and with a few additions it would be possible to edit critically every manuscript before it is sent to the printer, and to read and revise carefully every proof before it is sent to press. This would entail, of course, an extra expense for clerk hire, but this would be more apparent than real, for as an offset the bureaus would be relieved of much of the work now devolving upon them and a saving would probably result from the consolidation of the work, to say nothing of the advantage gained by the Department in having all of its editorial work and proof reading done by men especially trained for that work, whose skill has been acquired through years of experience.

Respectfully,

GEO. C. HAVENNER,
Chief, Division of Printing and Publications.

To Hon. CHARLES NAGEL,
Secretary of Commerce and Labor.

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